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Macworld

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The Mac Product Experts

47 FANTASTIC GADGETS, APPS, AND WEB SITES

Great Mac Stuff!

AND WE PICK THE

30 MOST IMPORTANT APPLE PRODUCTS OF ALL TIME

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Beck
Guero
RED HOT CHILI PEPPERS
STADIUM ARCADIUM
50 CENT
nine inch nails broken
Foo Fighters
Flat Bed Slim
Blackville
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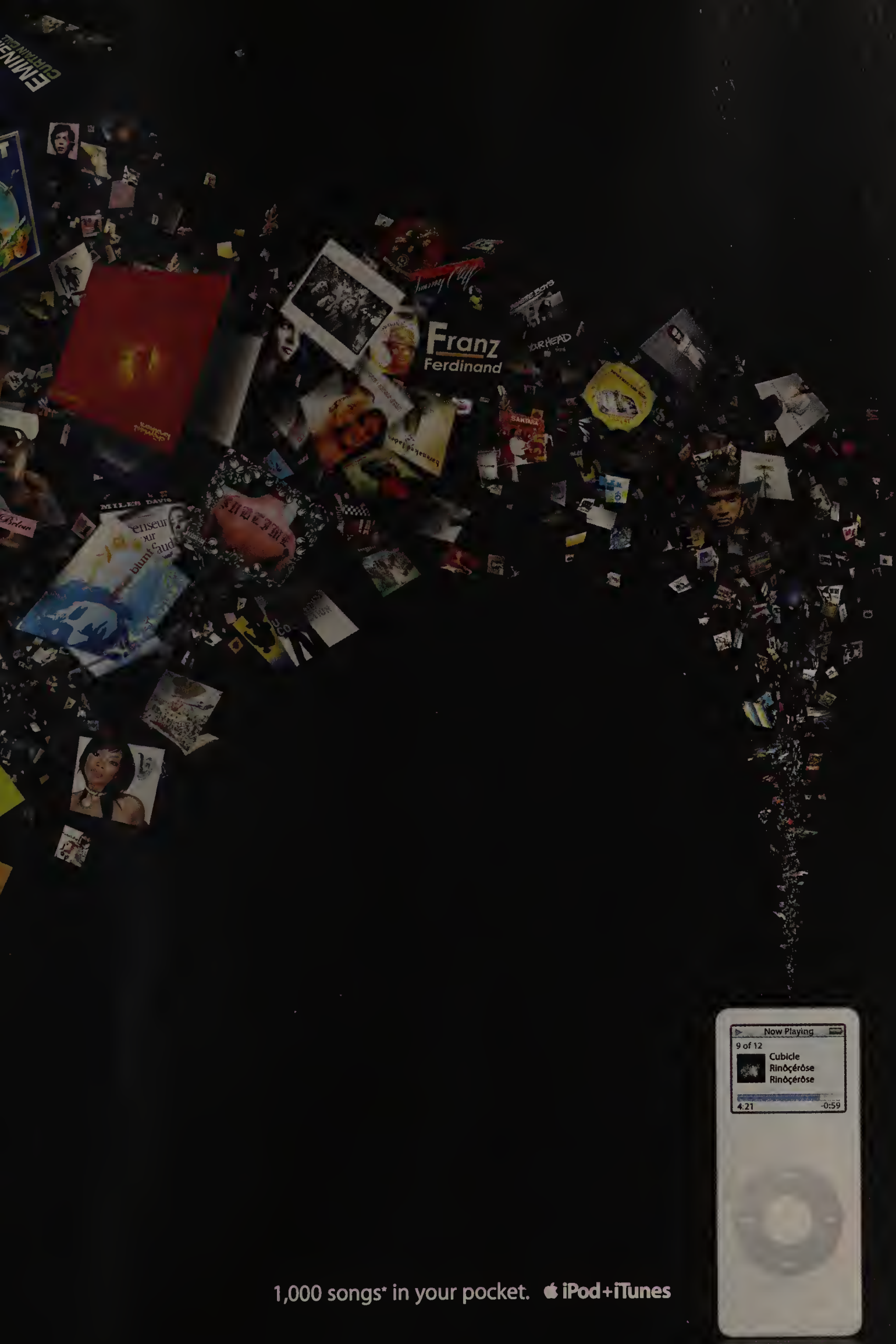

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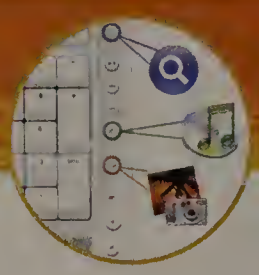

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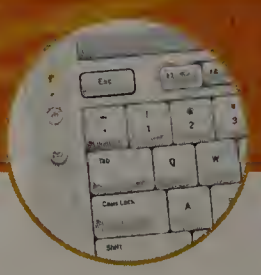

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COVER STORY

54 **Hotter Stuff**

In this supersized edition of our monthly *Hot Stuff* page, we present the things that make us say "Wow!" *Macworld*'s editors have chosen their favorite gadgets, utilities, programs, and Web sites—some are useful, some are fun, and some are downright bizarre.

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66 **New Life for Old Photos**

DERRICK STORY

Don't lose your priceless mementos—with this guide to rescuing, restoring, and reusing your fading prints and negatives, you'll be able turn back time. We show you how to choose a scanner, make the best possible scan, and repair flaws (and damage caused by time), as well as how to back up and organize your new digital prints.

On the Cover
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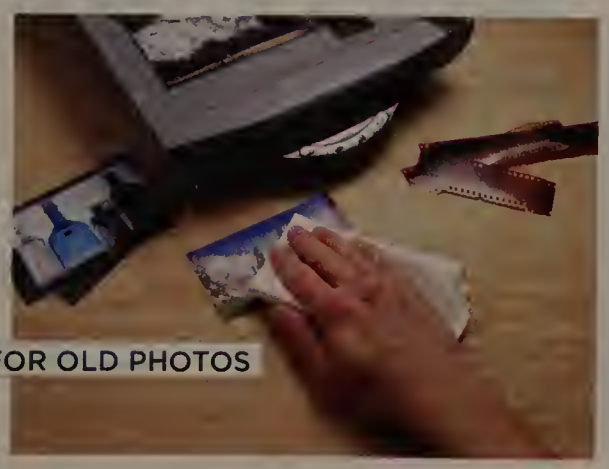
Peter Belanger



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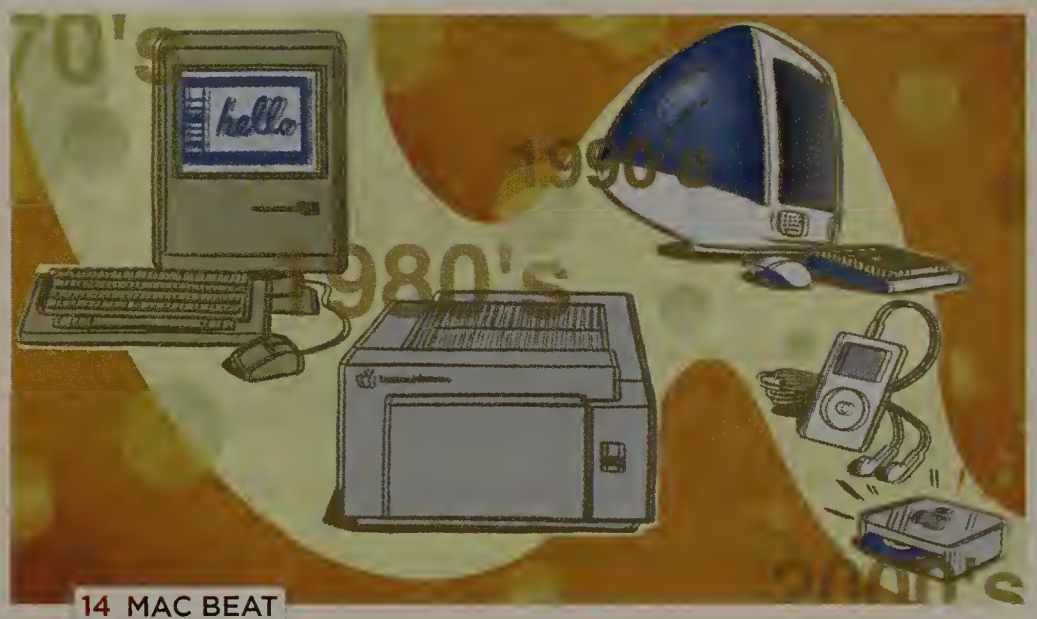

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- Senior Editor Christopher Breen gives you step-by-step instructions for creating a podcast.
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Delete locked files, add streams to your iTunes, see an enlarged cursor in screenshots, and download a bookmarklet that will get you to Macworld.com pages faster.

BACK PAGE

112 **Hot Stuff**
Check out our favorite new stuff.

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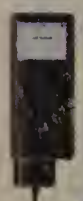

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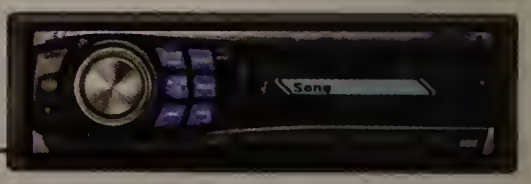

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Opening New Windows

When Apple first announced that it would ship Intel-based Macs, company executives said that they wouldn't prevent anyone from figuring out a way to run Windows on those computers. Then came the release of Boot Camp (see *Mac Beat,* page 18). Now not only can Intel-based Macs run Windows, but Apple is giving you the software to do it.

Is It Good?

Since this is *Macworld*, let's stipulate that Mac OS X is a better operating system than Windows. But the fact is that many Mac users *have* to use Windows, at least occasionally. Maybe your company requires you to use specific Windows apps or visit Web sites that don't support the Mac. Or maybe there's a program you want to use that simply won't run on the Mac.

Historically, you've had two options: run Microsoft's Virtual PC emulator or hide a PC under your desk. Now, with Boot Camp, you have a third: run Windows software on your Mac.

But don't forget that Boot Camp only lets you *reboot* into Windows. When your Mac is running Windows, OS X is completely gone. If you want to switch back and forth between Mac and Windows applications, you'll spend a lot of time staring at boot screens.

That's why I think another shoe will drop. Either Microsoft will update Virtual PC to run on Intel-based Macs, or Apple will integrate virtual-machine technology into OS X 10.5. Or even better, Apple will build Windows-in-a-window support into OS X, and Microsoft will build support for Mac-specific hardware into its upcoming Windows Vista OS. That would make using Windows on a Mac more like using Classic.

Who's It For?

Windows compatibility isn't just for Mac users forced to use Windows occasionally. It's also for Windows users who might like to switch to the Mac.

For years, the world has told Windows users that the Mac is weird and—worst of all—*incompatible*. The option of running Windows on Mac hardware gives them a safety net: They know they can always go back to Windows if they run into a problem.

Will these people actually buy a Mac and then use it to run Windows? I doubt it. For many such switchers, it will be enough to know that they can always install Windows if they need to—but they never will. Others will install Windows and then eventually realize that they can't remember the last time they used it.

Is It Bad?

Some Mac users and pundits complain that Boot Camp signals the end of the Mac as we know it. Now that Macs can run Windows programs, they argue, developers won't want to write Mac software anymore. I disagree. If Mac users wanted to run Windows apps, we wouldn't be Mac users—and developers know it.

The transition from OS 9 to OS X cleaned out the last of the companies who weren't really committed to the Mac. In fact, I bet that some companies that make Windows-only apps will discover what great customers Mac users are and release Mac-native versions of their apps for the first time.

The one exception might be hard-core PC games, which don't really even let on whether you're running Windows or OS X. I can see game developers not bothering to port those games to the Mac. But more casual games—the Sims series, for instance—will probably continue to be successful on the Mac.

The most chilling part of the Windows-on-Mac story is the fact that Windows attracts viruses, spyware, and other evils like honey attracts bears. By default, Windows can't see what's on your Mac-formatted drive volume. Maybe that's a good thing—because it means a malicious PC virus can't do ugly things to your Mac files.

But if you *do* install Windows, be sure to install a virus checker and keep it up to date. Rebooting into Windows means moving into a dangerous neighborhood—so be prepared.

Is It Still a Mac?

In a world where iMacs can run Windows XP, what makes a Mac a Mac? The answer is the same as it's always been: Apple's combination of great hardware design and great software. Your Mac is still a Mac. That it can also be a PC—that it's the only computer that can run Windows XP *and* Mac OS X—just shows how versatile it really is.

The ability to run Windows natively on Mac hardware isn't the end of the Mac's unique place in the world. In fact, it's just the beginning. The future will bring countless possibilities for both Windows-to-Mac converts and longtime Mac users like you and me.

Do you ever use Windows apps? Will you be installing Boot Camp? Share your thoughts in our forums at macworld.com/forums, or e-mail me at jason_snell@macworld.com. And don't miss my Weblog at macworld.com/0918.

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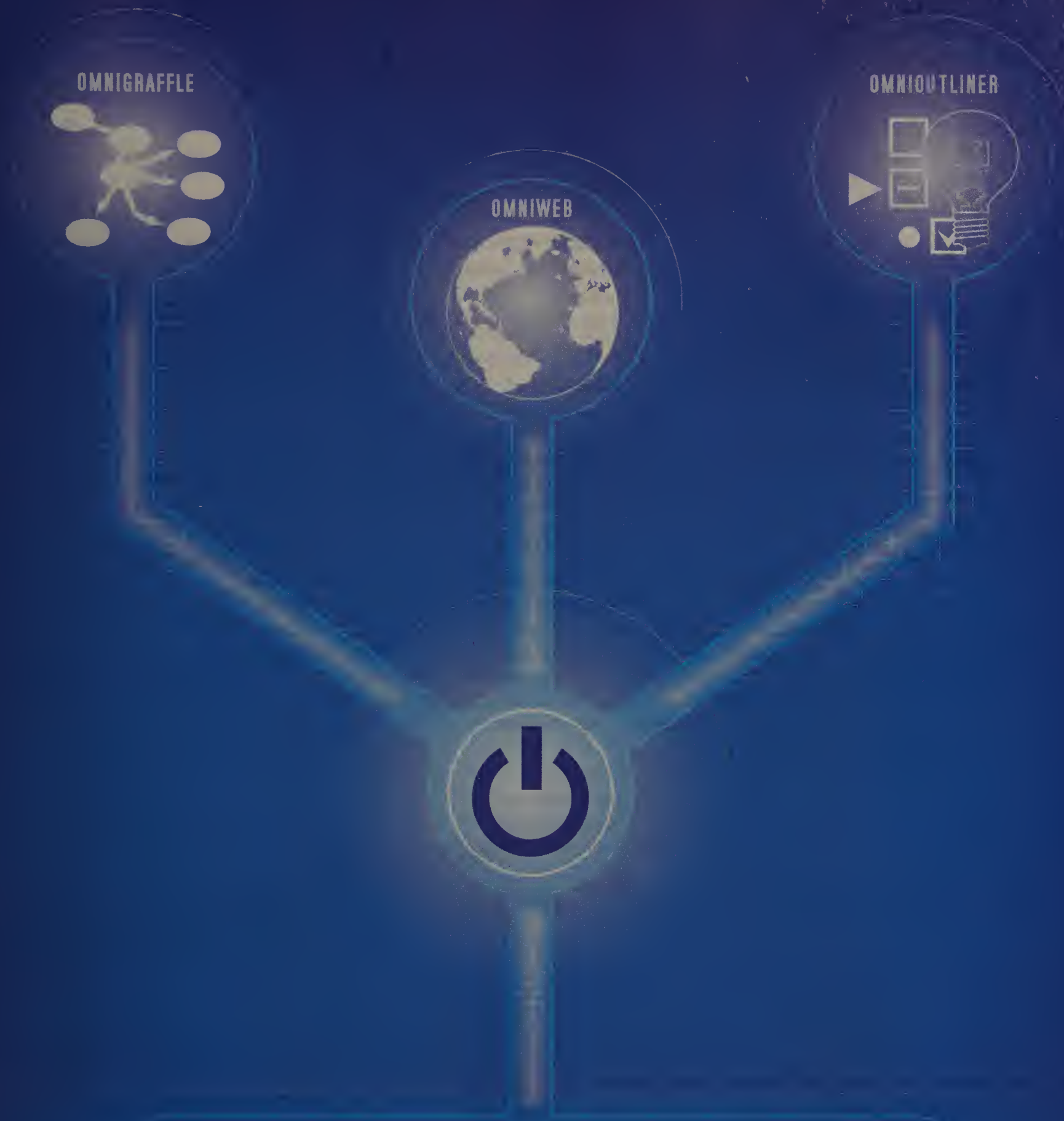

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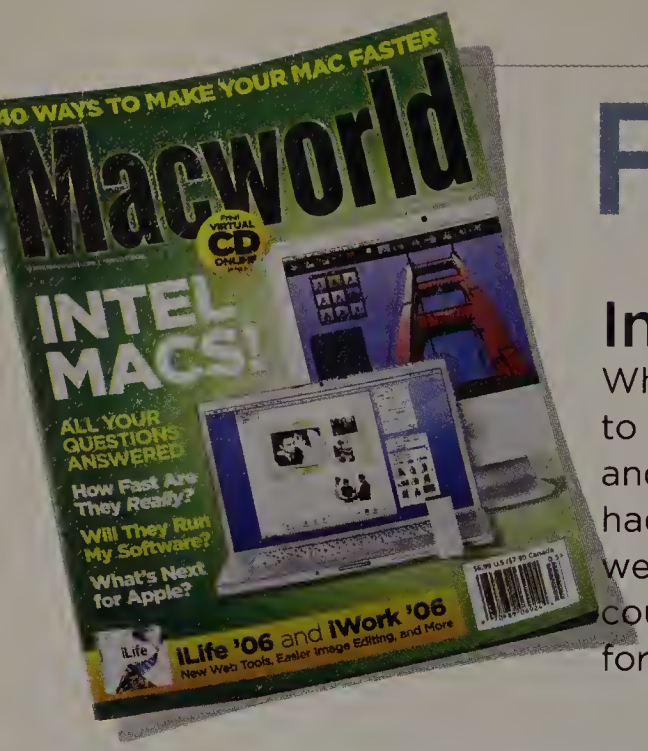


FEEDBACK

Intel-ligence

When Steve Jobs announced that Apple was switching from PowerPC to Intel chips, initial reactions included furrowed brows, quizzical stares, and the scratching of heads. You had questions and, until recently, we had few answers. Once the first Intel-based Macs finally arrived, we immediately set about answering as many of your questions as we could. Those answers, published in the March issue, satisfied many. But for a few of you, they only raised more questions. □

Questions about the FAQ

DANA F. SUTTON

I read the test scores in "The Intel Mac FAQ" (March 2006) with considerable interest, but do they tell the complete story? You compare the 2GHz iMac Core Duo with the 2.1GHz iMac G5, using the factory-installed 512MB of RAM on both. But I have read that Rosetta is a real memory hog. Is 512MB of RAM really enough to run Rosetta on a Core Duo machine? Is Rosetta really as slow as you report, or did your test force it to do a lot of disk swapping? It would be interesting if you could repeat these comparisons with RAM maxed out on both machines.

In addition to the tests we reported, we also tested with 1GB of RAM. Everything—on both Intel and PowerPC systems—ran only slightly faster, with Photoshop showing the most improvement. And yes, Rosetta apps really are as slow as we reported.—Ed.

BOB BARKIE

I switched from a PC to an iMac a few months ago. When I discovered a couple of months later that I had just missed out on getting an iMac with an iSight and Front Row, I wasn't really too dismayed (though free gadgets and software are always cool). Now I read that if I had waited just a little longer, I could have had an iMac that is reportedly twice as fast—and that still includes an iSight and Front Row—for the same price that I paid for my machine. I can live with the bad timing, but I really wonder about software compatibility. I know Apple is writing two types of code for some of its programs, so they will run on PowerPC and Intel chip–based machines. But what about other developers? Will I discover that I've waited for Civilization IV just to find that it will run only on an Intel Mac? It seems that the Mac world is becoming as volatile as the Windows world.

SCOTT LEDERHAUS

The new MacBook Pro will not have a modem. Why not? I know that few laptop users go online via modem these days, but what about those of us who use a modem to fax documents? I was ready to go and buy a new notebook, but without a modem hookup, I'm lost.

As we wrote in the story, most laptop users probably have broadband access over Ethernet or Wi-Fi. And Apple does sell an external USB modem for people who need it.—Ed.

Up with Tune-Ups

HARRY BAXTER

Thank you, thank you, thank you for your "The Ultimate Mac Tune-Up" article (March 2006). Safari used to take 45 seconds to load; now it takes 3, thanks to your tips. If you have any more hints, please make them a regular feature in your columns.

CLAUDIU BENGA

While Joe Kissell did an OK job overall of explaining how to speed up various applications, I have a problem with some of his advice about Firefox. The problem is with his encouraging readers to set `network.http.pipelining.maxrequests` to 8. HTTP says that a client can have four queries at a time on a given Web server. Increasing this to eight would fool most Web servers into thinking that your one client was two. Yes, it would increase *your* speed, but it could potentially slow down everyone else's. In extreme cases, if enough people followed this advice, it could crash their server.

JAMES BAILY

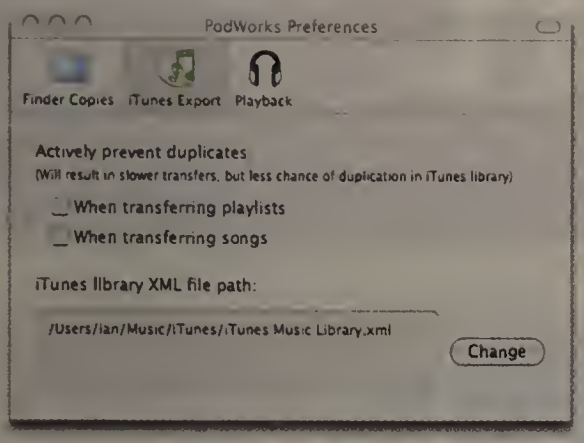
In "The Ultimate Mac Tune-Up," Kyle Wiens wrote, "If the free RAM reported by Activity Monitor is less than 10 percent of your physical RAM . . . you need to increase your RAM until those numbers are more in line." This is just plain wrong. If you run OS X for a while, nearly all of your free memory should be used—and this is a good thing. Inactive memory is used to cache data and recently used applications. If those cached items are needed again, the OS will load them from RAM instead of from the disk. Free memory is memory that the OS isn't using for caching and that is therefore going to waste.

You're right. That sentence should have been "If the total of free and inactive *[emphasis added] RAM reported by Activity Monitor is less than 10 percent of your physical RAM under a typical workload of apps and documents, you need to increase your RAM until those numbers are more in line." That was the editor's error, not the author's, and he's very, very sorry.—Ed.*

CHAD ARMSTRONG

Regarding your article about troubleshooting bad RAM: recently, Adobe InDesign started unexpectedly quitting on me. Then my whole computer started crashing. Then it wouldn't even boot. At first, I suspected a faulty hard drive, but the Apple Hardware Test reported that my drive was fine. After some further tests, it reported that one of the RAM chips was bad. I took the chip out and shipped it off to get a replacement. With that new chip installed, everything is now up and running just fine. The upshot: RAM defects can be difficult to diagnose, since they can appear to be so many other things.

PHOTOGRAPH BY PETER BELANGER



Copy That

IAN THOMAS

In "Multiple iPods and Computers," (*Playlist*, March 2006), you said that iPod.iTunes can avoid duplicate files, but implied that PodWorks can't. I am attaching a screenshot to prove that PodWorks *can*. I don't know how well these options work, but they're there.

They Write the Songs

DANIEL BAKER

When Dan Miller concluded his story about the controversy over publishing music lyrics online ("Bye-Bye, Lyrics," *Mac Beat*, March 2006) by saying "as usual, users are caught in the cross fire," he's repeating the all-too-popular sentiment that listeners are the victims here. But if anyone's caught in the cross fire, it's the composers. Music publishers who are going after online lyrics sites share ownership of those songs with the composers. By seeking free access to copyrighted material, the "users" Miller refers to are, in effect, waging war against intellectual property rights. If publishers do nothing to defend those rights, composers lose income. And, after all, without the composers, would this situation even exist?

Terminally Difficult

WALTER R. BASIL

The review of MacJournal 3.2 (★★★★; March 2006) says that you can "easily export journals to a .Mac account or post entries to your blog using LiveJournal, Blogger, WordPress, or MovableType." True, you can—but only after you go to Terminal, enable some hidden features, and then tag your articles correctly. That's easy? I love MacJournal, but your review could cause someone to go out and buy the software only to find that he or she needs to jump through several hoops to get it to work.

You're right; we should have made it clearer that MacJournal doesn't claim to be a full-featured blogging client.—Ed.

CORRECTIONS

In March 2006's *Playlist* column, we mistakenly reported that Senuti doesn't copy ratings and play counts. It does.

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Apple's First 30 Years

Three Decades of Contributions to the Computer Industry

BY CYRUS FARIVAR

On April 1, 1976, Steve Jobs and Steve Wozniak founded Apple Computer to begin selling the Apple I. Thirty years later, you'd be hard-pressed to find anyone who could reasonably challenge the notion that the company has had a profound impact on the personal computer industry, in such areas as graphical interface, desktop publishing, and digital music. Even Microsoft and its customers could toast Apple on this special occasion for its contributions to Windows. (Check out "30 Products for 30 Years" for our picks of the top Apple products of all time.)

More than just the sum of their parts, Apple's products have inspired passion in their users—something uncommon in the computing world. As Guy Kawasaki, an early Apple marketing employee and later an Apple fellow, puts it, the first time he used a Macintosh, the experience was overwhelming. "The angels started singing, the clouds parted—it was a religious experience," he says. "I've never had the same reaction to a product, not in 25 years." (For more historical perspective, check out an excerpt from Owen W. Linzmayer's *Apple Confidential 2.0: The Definitive History of the World's Most Colorful Company* [No Starch Press, 2004] at macworld.com/1253.)

All about the Interface

Apple didn't invent the graphical user interface that Mac (and Windows) users now take for granted—the idea for Mac OS came from what Jobs saw during a fateful trip to Xerox's Palo Alto Research Center in the early 1980s. And much of the work that Xerox put into the Alto, the first real personal computer, led to the first Mac.

After Apple popularized concepts such as the desktop, windows, and the mouse, Microsoft copied many of these elements for the first version of Microsoft Windows—Apple's pioneering served as an incentive for Microsoft and other OS designers to make computers significantly more user-friendly.

"The people that have the most to celebrate are Windows users," says Paul Saffo, director of the nonprofit research

ILLUSTRATION BY JONATHAN CARLSON, MACINTOSH 128K PHOTOGRAPH BY JOHN GREENLEIGH/FLIPSIDE STUDIOS

group Institute for the Future (www.iftf.org). "But for Apple bringing out the Macintosh and demonstrating the [graphical] interface and the mouse, we would all be stuck with a C: prompt."

With Windows, Microsoft saw the opportunity to capture market share—as a licensed operating system, it could run on many hardware manufacturers' PCs, whereas Apple's OS worked only on Apple hardware.

A New Direction

The fact that Apple was quickly unable to compete in the everyday business and personal computer markets may have been a blessing in disguise, according to Phil Leigh, founder of market research firm Inside Digital Media. Apple's subsequent focus on improved graphics capabilities and better multimedia made the Mac the preferred platform for artists, designers, and musicians.

"Since the market has for the last ten years been steadily trending toward digital media," says Leigh, "this has worked toward the advantage of Apple, which has a rare opportunity for a second chance at greatness. Digital media is becoming the dominant application on computers. Ten years ago, Bill Gates wrote a book called *The Road Ahead*, and he pointed out that the computers of tomorrow are not going to be used to do word processing 1,000 times faster; they are going to be used to do entirely new things. It's pretty clear that digital media is at the heart of that right now."

Jobs in Charge

Most people agree that Apple's focus on digital media, as well as other important innovations, wouldn't have happened to as great a degree without Steve Jobs. He has had a profound impact on how Apple, and therefore the entire computer industry, has evolved. Apple's most successful days have occurred with Steve Jobs at the helm, both in the early days with the original Macintosh and recently with the first iMac and the iPod.

"Once Apple bought Jobs's company Next [in 1996] and he was appointed to the Apple board again, it was obvious he was coming back, and in a big way," says Dag Spicer, senior curator of the Computer History Museum of Mountain View, California (computerhistory.org). "Apple had just lost $740 million in the first quarter of 1996, and things looked very bleak indeed. No one but Jobs could have brought the company back," says Spicer. "He's the only one who can lead Apple internally and inspire Apple customers externally. Basically, Jobs is Apple, which is both good and bad for the company. This has not changed over the 30 years."

Looking Ahead

What Steve Jobs and Apple have up their sleeves next is anyone's guess. Many analysts say that Apple is bound to release some type of set-top device that can play digital media files on a television. Former employees are out of the loop, but that doesn't mean they don't have some guesses.

"The iPod will get wireless features soon and eventually morph into a cell phone," says Andy Hertzfeld, a primary architect of Apple's Macintosh Operating System and the author of *Revolution in the Valley* (O'Reilly, 2004).

Most expect Apple to continue innovating and pioneering new technologies, as it has for the past 30 years. "I hope [Apple is] creating a computer that is to the Macintosh what the Macintosh was to the Apple II," says Kawasaki. "That's the test; that's the main thing." □

CYRUS FARIVAR is a *Macworld* assistant editor.

APPLE'S MOST SIGNIFICANT CREATIONS

30 Products for 30 Years

To celebrate Apple's 30th anniversary, the editors of *Macworld* have picked the 30 most significant products from our favorite company in Cupertino. Here are our top 10, complete with the reasons behind our choices. A list of the 20 other important products follows (for more information on those products, go to macworld.com/1252).

1. The Macintosh 128K

"It sure is great to get out of that bag," declared the original Macintosh when Steve Jobs pulled it out of a carrying case on January 24, 1984. Jobs's decision to use speech-synthesis software so that the Mac could introduce itself was brilliant; in moments, the Mac had already distanced itself from all of its competitors in the computer market. The Mac, with its graphical interface and point-and-click simplicity, showed off a vision that still drives Jobs and Apple today: technology can make the lives of regular people better. From the perspective of 22 years later, it's clear that the original Mac changed the world, and deservedly so.—JASON SNELL

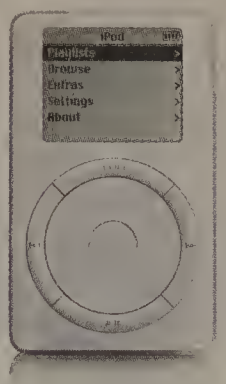
2. The iMac

Although you can't pin Apple's late-1990s resurrection on one machine alone, revenues from iMac sales did help right the company's listing finances. And as a symbol of that revival, you can't beat the original Bondi blue iMac. From its bold blue case to its abrupt dismissal of the floppy drive, it was a decisive design break from the company's beige-box past. Just as importantly, the iMac put Apple back on the pop-culture map—suddenly, iMacs were popping up everywhere from TV and movie screens to the comics page. No, the iMac didn't save Apple. But it supercharged the company's mojo like nothing since the original Mac.—DAN MILLER

3. The iPod

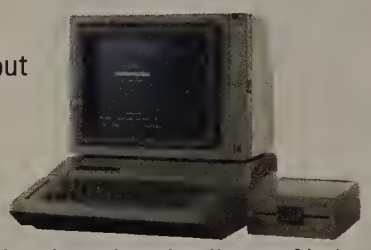
In the modern world, there are two distinctive eras: Before iPod (BiP) and After iPod (AiP). Apple's diminutive music player has had that kind of effect on the world today, and the original iPod, intro-

continues



duced in October 2001, started it all. BiP meant 14 songs on a $17 silver disc; AiP means 1,000 songs in your pocket. BiP meant albums; AiP means playlists. BiP meant brick-and-mortar record stores; AiP means the iTunes Music Store. BiP meant Apple was a modestly successful computer company; AiP means Apple is a dominant media conglomerate. I know which era I prefer living in.—CHRISTOPHER BREEN

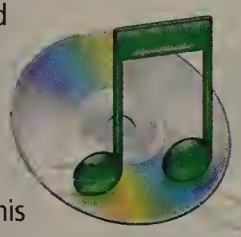
4. Apple II



The product that put Apple on the map was the Apple II, an immensely popular personal computer. The Apple II introduced millions of kids to the computer age in the late 1970s and early 1980s. It featured vibrant color graphics, countless games (remember Ultima, Computer Baseball, and Choplifter?), and the easy-to-program BASIC language that no doubt led thousands of those same kids into the information-technology workforce. In its day, the Apple II was totally awesome.—JASON SNELL

5. iTunes Music Store

For years, the music industry saw the Internet as the digital equivalent of a dark alley, where illicit goods were exchanged and theft was rampant. So it's no surprise that music executives were resistant to the idea of online music sales. But Steve Jobs used his media-industry status—as well as the controversial FairPlay Digital Rights Management technology—to convince the major record labels to test the waters of downloadable music. The music-loving public in 21 countries has responded by purchasing more than 1 billion tracks since the store debuted in April 2003.—DAN FRAKES



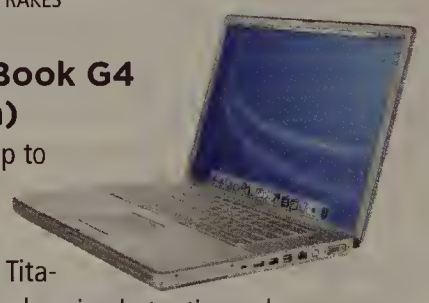
6. Mac OS X

The introduction of Mac OS X in 2001 started a huge transition for Mac users. No longer was the Mac a "who needs the command line?" system. Instead, OS X was built around the ultimate command line, Unix. Unix was ugly but powerful—offering true multitasking and protected memory, features missing from Mac OS. Hiding all the Unix ugliness was Aqua. The transition to OS X has been long and not always smooth, but the OS is light-years ahead of anything OS 9 could have hoped to become.—ROB GRIFFITHS

7. LaserWriter

Before the LaserWriter arrived in 1985, desktop publishing didn't really exist. If you wanted high-quality printing, you either sent your work to a typesetter or spent tens of thousands of dollars on printing and computing hardware. The original LaserWriter, along with the release of Aldus Pagemaker, changed all that, offering quality that nearly rivaled professional typesetting, at a bargain (for its time) price of $6,995. But what really set the LaserWriter apart was that it was the first consumer printer to include Adobe's PostScript technology, spurring the widespread adoption of PostScript in the printing industry. And the LaserWriter's support for LocalTalk meant that it was Apple's first networkable printer.—DAN FRAKES

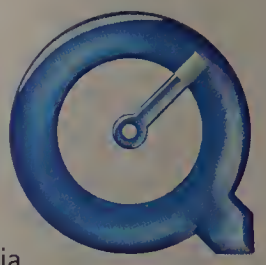
8. PowerBook G4 (Titanium)



The first laptop to ship with a PowerPC G4 processor, the Titanium PowerBook arrived at a time when Apple's laptop business was facing stiff competition from devices like the Sony VAIO—sleek laptops that offered stripped-down functionality in a compact case. This PowerBook proved that you didn't have to sacrifice features and power for a slim portable. And Mac users responded—in 2001, PowerBook sales made up 15 percent of Apple's total revenue from computer sales. By 2004, that portion had jumped to 32 percent. The PowerBook G4's influence endures—despite a bevy of changes inside, the Intel Core Duo–powered MacBook Pro still sports the sleek, silvery look of this predecessor.—PHILIP MICHAELS

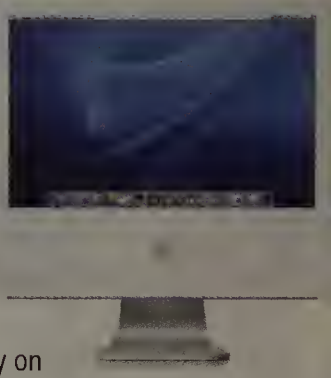
9. QuickTime

To many people, QuickTime is simply a multimedia player that lets them watch digital video files on their computers. And when it was released in 1991, playing back digital video smoothly on a personal computer was an amazing feat. (Even more amazing, QuickTime arrived almost a full year ahead of Microsoft's first version of Video for Windows.) But QuickTime is much more than a way to play back video—it's the multimedia architecture that defines so much of what we do on our Macs. Think of an application that displays or manipulates audio or video, and it's probably built on QuickTime. Now think of trying to get by without those QuickTime-driven features. The Mac world would be a less dynamic place.—JONATHAN SEFF



10. iMac Core Duo

Many Mac loyalists howled in outrage when Apple announced that it was going to start using Intel CPUs in Macs. But when the iMac Core Duo—the first Mac to use those chips—shipped in January 2006, Mac users realized these new machines were still Macs. As more and more Mac apps learn how to run natively on the Intel chip, those same Mac fans may start to appreciate the long-term implications of Apple's Intel switch. In addition to bringing dual-processing power to a consumer Mac, the iMac Core Duo also ushers in an era when Macs can run Windows, making it a feasible alternative for many, many more computer buyers than ever before. And that could make the Mac a more direct competitive threat to the Windows PC than it has been in years.—DAN MILLER



11. iLife
12. iBook
13. AirPort Base Station
14. Mac mini
15. Final Cut Pro
16. Power Mac G5
17. AppleScript
18. Apple decal
19. iPod with video
20. MacWrite and MacPaint
21. iTunes
22. System 7
23. PowerBook 100 family
24. HyperCard
25. Mac II
26. G4 Cube
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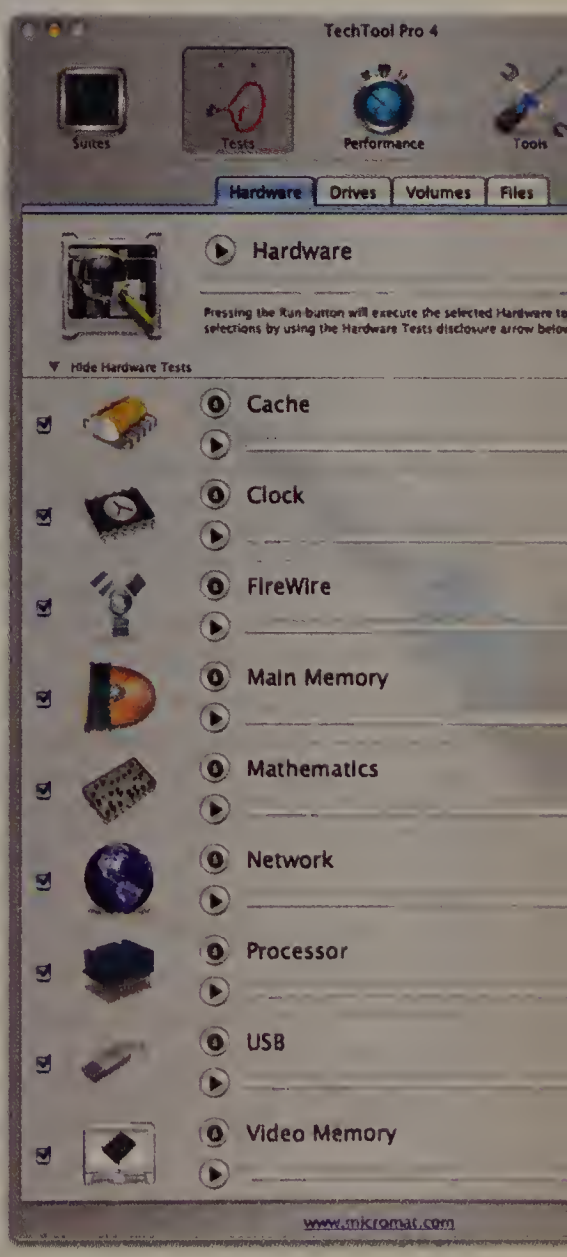

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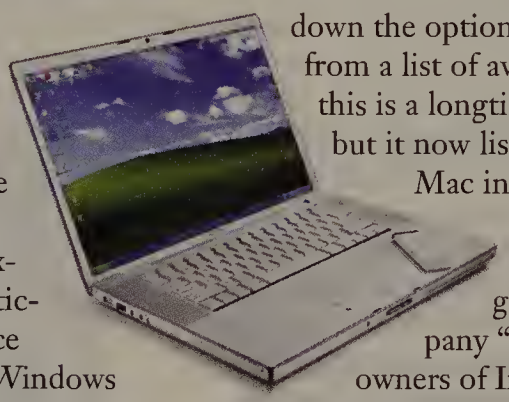
BOOT CAMP SOFTWARE ALLOWS INTEL MACS TO RUN WINDOWS XP

Apple Boots Windows

A few weeks after a team of hobbyists figured out a hack that let them run Windows on the latest Macs, Apple introduced software that lets owners of Intel-based Macs to do the same thing. Boot Camp, which will be included as part of OS X 10.5 (Leopard), is now available as a public beta release; it allows users to boot directly into Microsoft Windows XP.

The software includes the Boot Camp Assistant application, which aids with drive partitioning and the installation of Windows drivers for Mac hardware. The partitioning process is done in OS X and features a slider that lets users determine the amount of space to give to Windows. Partitioning is dynamic, so you don't need to erase your hard drive in order to create a new Windows partition.



For added safety and flexibility, Boot Camp automatically leaves 5GB of free space surrounding the Mac and Windows partitions. Changing the size of a partition later, or removing it altogether, is also supported directly within Boot Camp Assistant.

"If you want to go back to one partition for the Mac, you just rerun Boot Camp and that comes up as an option," says Brian Croll, Apple's senior director of software product marketing.

One complication for users may come when they try to share files between their Windows XP and OS X installations. OS X can read and write to Windows' FAT32 volume format, but FAT32 supports file sizes only up to 4GB. Windows' newer NTFS format supports larger volumes, but OS X can only read those volumes, not write to them. And Windows XP can't natively read Mac-formatted HFS drives.

In addition to a full version of Windows XP SP2 Home or Professional (prices start at around $100), Boot Camp requires OS X 10.4.6 or later, a firmware update (available via Software Update), and a blank recordable CD.

As part of the installation procedure, Boot Camp Assistant helps you burn a CD containing all of the drivers necessary to run networking, Bluetooth, graphics, and other functions in Windows. After the Windows installation is complete, you insert the CD, which installs the drivers. The iSight video camera and Apple Remote included with Intel-based Macs won't work with Windows XP, however.

The CD created by Boot Camp Assistant also installs a small Windows utility (similar to the Mac's Startup Disk preference pane) that lets you choose a Windows or Mac startup volume. In addition, you can choose which volume to boot from at startup by holding down the option key and picking from a list of available volumes—this is a longtime feature of OS X, but it now lists both Windows and Mac installations.

Previously, Apple executives had suggested that the company "wouldn't stop" owners of Intel-based Macs from booting into Windows XP. Boot Camp changes that somewhat—now Apple is giving users a leg up on the process.

"After we released the Intel-based Macs, we had a lot of customer requests asking if it was possible to run Windows on those machines," says Croll. "We decided we would help it along by creating Boot Camp."

However, Apple made it very clear that the company would not include Windows on future Macs and that it would not support the operating system.

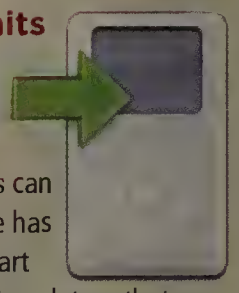
"We are not going to sell or support Windows," says David Moody, Apple's vice president of worldwide product marketing. "You have to bring your own Windows."

So why offer Windows booting at all? Apple officials feel that adding Windows compatibility to Mac hardware will make it easier for Windows users to switch to the Mac.

"This will really help a lot of folks make up their mind whether to move over to the Mac," says Croll. "We think this makes the Mac even more appealing for all those Windows users who are considering the switch."—JIM DALRYMPLE

NEWS IN BRIEF

iPod Update Limits Volume



After complaints and a lawsuit about how the iPod's high volume levels can cause hearing loss, Apple has released software—as part of its iPod Software 1.1.1 update—that lets users set a maximum volume for fifth-generation iPods and iPod nanos. The update also lets parents set a volume limit for their kids' iPods and then lock the settings with a combination code. "With the increased attention in this area, we want to offer customers an easy-to-use option to set their own personal volume limit," says Greg Joswiak, Apple's vice president of worldwide iPod product marketing.

Avie Tevanian Leaves Apple

Avie Tevanian, Apple's chief software technology officer and the man credited with building the core of OS X, has left his position at Apple. Tevanian joined Apple in 1997 as senior vice president of software engineering. Prior to his position at Apple, Tevanian was vice president of engineering at Next, the computer company that Apple CEO Steve Jobs founded between stints running Apple. Tevanian started his career at Carnegie Mellon University, where he was the principal designer and engineer of the Mach kernel, which served as the basis for NextStep and led ultimately to the development of OS X.

Apple Sells First Full-Length Movie

With the release of the Disney Channel film *High School Musical*, Apple has added its first full-length movie to the iTunes Music Store (a moniker that's becoming less accurate every day). The $9.99 musical, while technically a made-for-TV movie, clocks in at 1 hour and 39 minutes—the longest video content currently available from the Music Store. (At press time, the movie was missing from the iTunes Music Store, without explanation.)

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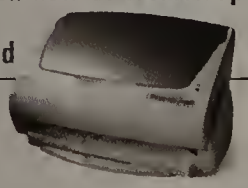

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- Introduction to Automator
- iDVD and iMovie
- File Sharing 101
- Ten Things That Every Mac User Should Try Before They Die?
- Leo Laporte's Personal Podcasting Primer
- Getting Started with iWork
- iPod Add-Ons: The Best of Playlist

More Advanced Macintosh User

- Mac OS X Hints: Top 20 All-Time Hints
- Amazingly Cool Utilities
- Mac Gems
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- A UNIX Guide to OS X
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- Intro to the Digital Photography Track
- Location Shooting Techniques
- Introduction to Shooting RAW in the Field
- Introduction to Adobe Bridge and Photoshop Workflow
- Introduction to the iPhoto 6 and Photoshop Elements 4 Workflow
- iPhoto's Secrets Unveiled
- Automate Your Image Processing Workflow
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- Organize Your Photo Collection
- Mastering the 80%: Image Editing in iPhoto 6, Aperture, and Elements 4

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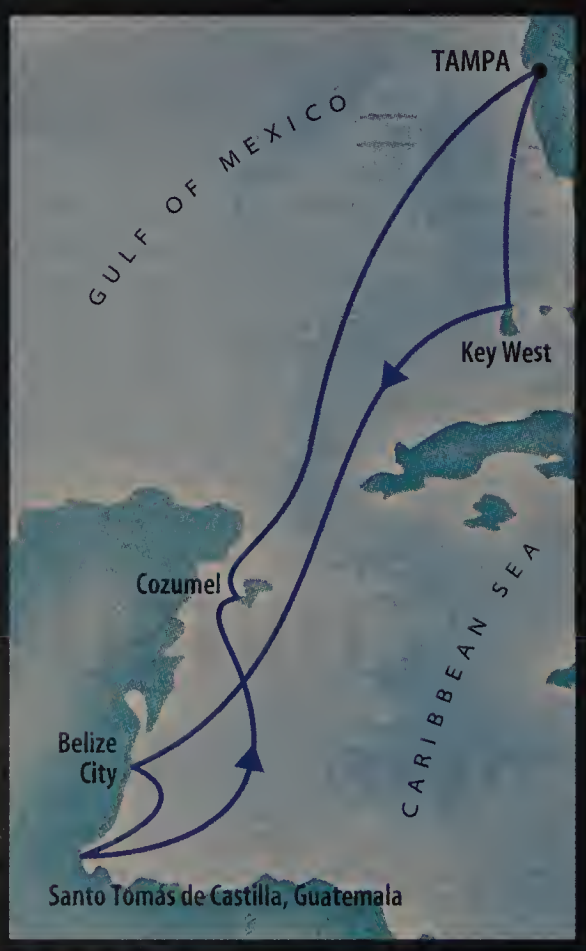

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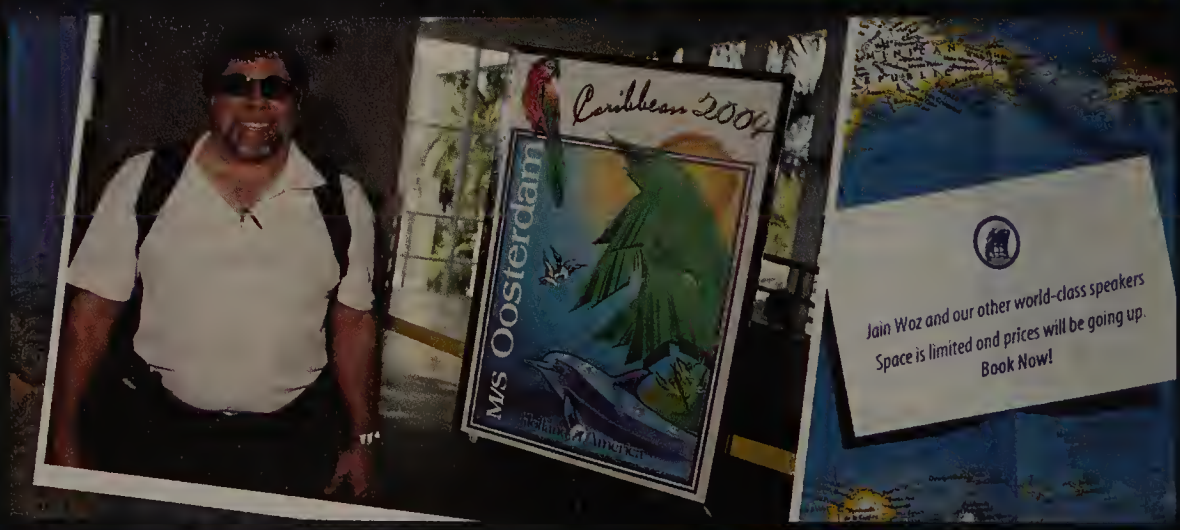

FRENCH LAW TO UNLOCK MUSIC COULD BACKFIRE

"Adieu" to DRM?

Although most consumers have been happy with the combination of the iTunes Music Store and the iPod, a digital copyright bill wending its way through the French legislature is targeting the very digital rights management (DRM) technologies that Apple and Microsoft depend on for online music sales. Analysts warn that the bill, if voted into law by the French Senate, could have far-reaching effects on music listeners in France—including the possibility of online music services abandoning that country altogether.

The proposed law would require that DRM developers reveal details of their technologies to rivals who want to build interoperable systems. At press time, the French National Assembly had approved the bill and sent it to the Senate for a final vote. Apple has condemned the bill as "state-sponsored piracy."

Apple has gone to great lengths since the opening of the iTunes Music Store to block efforts by other companies to crack its DRM software. "It's hard to imagine that opening up the DRM will go over well with Apple," says JupiterResearch vice president and research director Michael Gartenberg.

It's not likely to go over well with the record companies that provide online music services with content, either. Even if companies like Apple were to comply with the proposed law, record companies would surely want some say in the matter.

"If we're talking about the notion that no DRM is acceptable in France, then no digital music is going to be sold in France," says Gartenberg. "The record companies are just not going to allow that. We're talking about much larger issues than what does or doesn't happen with Apple."—JIM DALRYMPLE

INTERNET BEAT

Captain FTP 4.5, from Xnet Communications (www.captainftp.com): File Transfer Protocol client software adds Universal support for Intel-based Macs ($25).

Interarchy 8, from Stairways Software (www.interarchy.com): File Transfer Protocol client adds Universal support, as well as support for Automator actions, Dashboard widgets, and WebDAV ($39; upgrades, free for users who bought Interarchy 7 after January 1, 2006, $19 for other users).

SightSpeed 4.5, from SightSpeed (www.sightspeed.com): The voice-over-IP software now runs natively on Intel-based Macs and has been optimized for reduced demand on resources (contact SightSpeed for pricing).

Spam Cube, from Spam Cube (www.spamcube.com): Antispam appliance works with up to four computers, blocking unwanted e-mail ($150).

Webstractor 1.6, from Softchaos (www.softchaos.com): Web-content–capturing application adds Universal support for Intel-based Macs ($80; upgrade, free).

CREATIVE BEAT

FlightCheck Online Single Subscriber Edition, from Markzware (www.markzware.com): Online kit for printers and publishers checks digital files with customized preflight rule sets ($7,500 plus an annual maintenance fee).

ITC Library, Open Type Edition, from Monotype Imaging (www.fonts.com): CD collection contains more than 1,650 typefaces in 1,320 OpenType files (10-CPU license, $3,899; 20-CPU license, $5,999).

Manga Studio 3.0, from e frontier (www.e-frontier.com): Software for creating manga-style comics comes in a Debut version for hobbyists and an EX version for professionals (Debut, $50; EX, $300).

Mirage Studio Pro, from Bauhaus Software (www.bauhaussoftware.com): 2-D–animation and special-effects package features automation toolbar and digital storyboard system ($549).

Toon Boom Studio V3, from Toon Boom Animation (www.toonboom.com): 2-D–animation software has been optimized to run natively on Intel-based Macs ($399; upgrade, free).

BEAT ICONS BY PAUL HOWALT

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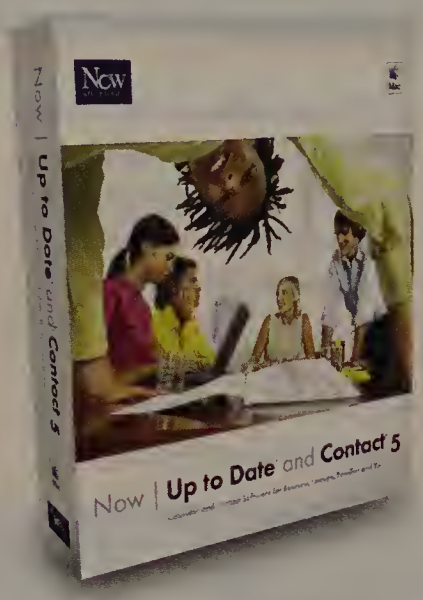

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iTUNES MUSIC STORE ADDS PAY-IN-ADVANCE OPTIONS

Apple's Season Passes

With the addition of Comedy Central's *The Daily Show* and *The Colbert Report* to the iTunes Music Store in March, Apple was not only offering some of the most sought-after programs in cyberspace—it was also adding daily content to the Music Store's lineup of mostly weekly shows. But what was perhaps most interesting about this addition was a new method of purchase and delivery.

Though these episodes—like other shows—are available for $1.99 each, Apple's new purchase option lets people buy episodes in advance for a reduced cost. A season pass for *The Daily Show* or *The Colbert Report* costs $9.99 and includes the most recent episode and the next 15 new episodes (16 episodes is a full month's worth of content for these four-times-weekly shows). Buying each episode separately would cost nearly $32, but advance purchase isn't just less expensive—iTunes automatically downloads each prepurchased episode as it becomes available. Apple has also added a similar option for many weekly shows, such as *Lost* and *The Office*.

Because of the way these passes work, many people refer to them as subscriptions. Applied to podcasts, which iTunes downloads on a regular basis, the subscription moniker makes sense. But in this case, it's a term that Apple disagrees with.

"This has nothing to do with subscriptions," says Eddy Cue, Apple's vice president of iTunes. "Anyone that says this is a subscription is thinking about this in an old-school way. A subscription as we talk about it in the online space is all about rentals and what you can and can't do with the content. That's not at all what this is—this is about buying the content. You own it; we just make it really simple to do."

Apple has been resistant so far to offering any type of subscription service, because the company says that customers want to own their content, not rent it. With a subscription service, when you stop paying the monthly fee, the content you downloaded will no longer play.

The company also believes that having passes as a way for networks to sell their programs online probably will not affect when or if television shows come to iTunes.

"There are two key factors to getting more content: time and acceptance from customers," says Cue. "It is not just about them wanting to join. There are clearances and rights that have to be dealt with—some are more complicated than others, and that all takes time. This is no longer an experiment to see if customers want this or not."

For its part, Comedy Central has embraced the new way to get its programming out to as many people as possible. The station offers comedy albums and television shows (including *South Park*) for download from the iTunes Music Store, video clips on its Web site, and daily jokes that are sent to customers via text messaging. The iTunes Music Store has been a great extension of Comedy Central's distribution goals.

"It's been wonderful," says Aileen Budow, Comedy Central's vice president of corporate communications. "We know that our audience is looking for this content, and comedy works so well on these different platforms. We want to make it so you can get Comedy Central anytime, anywhere."

Budow also says that Comedy Central will be rolling out more programs on iTunes in the future.

With more networks offering more programming through iTunes, Phil Leigh, president of Inside Digital Media, believes that this is going to be an important year for Apple and online video.

"A year from now, we are going to look back and say that 2006 was the year of Internet video," says Leigh. "Apple will figure prominently in there."—JIM DALRYMPLE

HARDWARE BEAT

iSnug Video Set, from HandStands (www.handstands.com): Kit for the fifth-generation iPod includes a hard-shell case, a leather skin case, a lanyard, a microfiber cleaning cloth, and a shield for protecting the iPod's screen ($40).

Mercury Extreme G4 CPU Upgrade, from Other World Computing (www.macsales.com): Processor upgrade for Power Mac G4 Sawtooth systems operates at 1.3GHz to 1.33GHz, depending on the original capabilities of the computer ($259).

MFM-HT205, from Sony (www.sonystyle.com): 20-inch LCD with native 1,680-by-1,050 resolution features a built-in NTSC TV tuner ($900).

MiniView USB KVM Switch, from Iogear (www.iogear.com): Four-port keyboard, video, and mouse switch is designed to fit under the Mac mini ($130).

nanoTune, from Digital Lifestyle Outfitters (www.dlo.com): iPod nano accessory combines an FM transmitter, an FM radio, and a headphone amplifier ($70).

Perfection 4490 Office, from Epson America (www.epson.com): Flatbed scanner with USB 2.0 interface can scan three black-and-white and two color pages per minute at 300 dots per inch ($349).

DEVELOPER FORUM HINTS AT FUTURE APPLE PRODUCTS

Intel's New Plans

Just as Apple does with its Worldwide Developers Conference, Intel uses its Developer Forum to give PC-industry customers and partners a detailed look at future plans and new technologies. At the March session in San Francisco, Intel hinted at what could be in store for Apple's Intel-based laptops and desktops—specifically, extremely power-efficient laptops in the second half of this year and desktop units with quad-core processors in early 2007. Intel also announced a funding deal that could put Intel processors inside Apple servers.

The forum began with the announcement that Intel would work with Transitive to apply QuickTransit binary translation technology—the same technology behind Rosetta—to servers based on Intel's Itanium 2 and Xeon processors. That would let Intel-powered servers run older software.

Can we expect Apple servers with either chip in the near future? "It would make sense," says Shane Rau, program manager for PC semiconductors at market-research firm IDC, "that as Apple transitions its client systems to Intel chips, it would also use the technology to transition its Xserve servers over to Intel chips, like Xeon."

Servers now represent about one percent of Apple's business, says Tim Deal, a senior analyst at Technology Business Research, adding that switching to an Intel processor would be primarily a marketing advantage: "Apple has been challenged by a pervasive perception that its server offering is not compatible with existing technology."

Itanium 2 and Xeon would speak for

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themselves; they are components IT customers already know well, says Deal.

Dual-Core Details Emerge

Lower-power, dual-core chips also got their moment in the spotlight, as Intel revealed more details regarding three long-awaited products: Merom, for mobile computers; Conroe, for desktop units; and Woodcrest, for servers. All three chips are based on Intel's new Core microarchitecture, a descendant of the design for the Pentium M processor (developed for mobile computing). These new chips are designed to be extremely power efficient and keep things cool.

The new chips will be manufactured using a 65-nanometer technology, a process improvement that will let Intel make smaller chips that draw less power—perhaps 30 percent less than today's comparable chips, Intel says. The company also revealed that it plans to produce even more-efficient 45-nanometer technology in 2007.

Power-efficient chips have two big implications for Apple. They give the company the ability to make highly creative notebook designs in late 2006 and increase the possibility of making an ultramobile PC—a tiny machine that's smaller than a laptop but bigger and more functional than a PDA.

Quad-Core Coming?

Intel also revealed details about its plans for quad-core chips. The company plans to release its first quad-core chip for desktop PCs, code-named Kentsfield, in the first quarter of 2007. But this chip won't really meld four CPUs into one chip—as AMD plans to do with its quad-core chips coming in 2007.

Instead, Intel's Kentsfield will combine two dual-core chips in one package. This isn't the most efficient design strategy, but it will help Intel get quad-core chips to market at the same time as AMD. For Apple users, quad-core chips will mean a huge amount of horsepower, compared with today's highest-end Apple desktops.—LAURIANNE McLAUGHLIN

PRODUCTIVITY BEAT

Curio 3.1, from Zengobi (www.zengobi.com): Brainstorming and document-management tool adds Universal support for Intel-based Macs and a new search-term highlight feature ($39; upgrade for 3.0 users, free).

DayChaser 2, from Econ Technologies (www.econtechnologies.com): Updated calendar and scheduling application adds Universal support for Intel-based Macs ($30; upgrade, free).

Marratech Manager Lite, from Marratech (www.marratech.com): Online collaboration system for smaller teams offers voice over IP, group-video using H.264, and an electronic whiteboard (five-seat license, $4,950).

Microsoft Office 2004 for Mac 11.2.3 Update, from Microsoft (www.microsoft.com): Maintenance update adds Sync services and Spotlight support to Entourage (free).

Phlink 3, from Ovolab (www.ovolab.com): Telephony software adds call-snooping feature for recording conversations, as well as native compatibility with Intel-based Macs ($150; upgrade, $40).

PhoneValet Message Center 4.0, from Parliant (www.parliant.com): Telephony software now runs on Intel- and PowerPC-based Macs and has an automatic call-recording feature for incoming and outgoing calls ($170 per line; upgrade, free).

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OUTSTANDING:
VERY GOOD:
GOOD:
FLAWED:
UNACCEPTABLE:

Point-and-Shoot Digital Cameras

The Latest Designs Offer Great Image Quality, Ease of Use, and Convenience

BY RICHARD BAGULEY

Point-and-shoot cameras are all about, well, pointing and shooting—taking photos easily and conveniently. A good point-and-shoot makes photography as painless as possible—the camera deals with the business of deciding what settings to use without distracting you from the fun of shooting. While their more advanced cousins offer features that serious photographers want (such as manual controls), the point-and-shoot models that we tested for this review sacrifice many of these attributes in favor of simplicity.

That's not to say these cameras lack features: they take pictures at high resolutions (the Canon PowerShot SD430, the Kodak EasyShare V570, and the Nikon Coolpix P2 at 5 megapixels; the Casio Exilim EX-S600, the Kodak EasyShare C663, the Nikon Coolpix S4 [see our review of the Coolpix S4 at macworld.com/1279], and the Olympus FE-120 at 6 megapixels; and the Fujifilm FinePix E900 at 9 megapixels). They also include multiple shooting modes and have zoom lenses. Instead of concentrating on features, they offer ease of use.

But there's a price to pay for this hassle-free shooting: the cameras restrict you to automatic settings, which you may find confining in the long run. Some models (such as the FinePix E900 and the EasyShare C663) do offer some manual controls, allowing you to alter the settings that the camera uses to take the photo. Other models don't, though: the Olympus FE-120 in particular is almost totally automatic, providing no way to set the shutter speed or aperture manually or even to control the focus. But for many users, that's an acceptable trade-off.

On all of the cameras, the automatic controls did a more than acceptable job of judging the settings for taking pictures, accurately metering the light, and taking images with accurate color. Although the quality of the final images differed from camera to camera, all the cameras produced at least good-quality images, and all produce prints of a reasonable size: the 6-megapixel cameras can produce 8-by-10-inch prints, and the 9-megapixel E900 allows you to go even bigger.

Canon PowerShot SD430

Moreover, all the cameras we looked at can shoot video, with most capturing the video at a resolution of 640 by 480. Some (such as the Olympus FE-120) don't record sound, and the video they capture won't be as good as that of a dedicated camcorder, but it's better than nothing, and carrying a small camera around is more convenient than transporting a big camcorder.

Canon PowerShot SD430

The PowerShot SD430 is the latest in Canon's popular line of Digital Elph point-and-shoot cameras.

The image quality of the 5-megapixel SD430 was above average; test images were well exposed, with good color and plenty of detail. The zoom range is 5.8mm to 17mm (equivalent to 35mm to 105mm on a film camera). Battery life was unimpressive, though, with the battery running out after a disappointing 192 images. While that's enough for a couple of days of serious shooting, you'll want to keep the charger on hand.

The zoom and focus mechanisms were a little noisy: both buzzed annoyingly while in use, and I found that the focusing noise was particularly irritating when I used the optical viewfinder. This could make taking candid nature shots a problem, too, as the buzzing noise might spook wildlife.

Like many other camera companies, Canon has been adding wireless functionality to its cameras, and the SD430 comes with a built-in 802.11b adapter for wireless printing with selected printers or for transmitting images to a PC. At press time, Canon was not shipping Mac wireless software, so I didn't get to test the wireless functionality. However, a software update with such functionality is in the works and will be available soon.

PHOTOGRAPH BY PETER BELANGER

At $500, the SD430 is a bit on the expensive side for a 5-megapixel camera, and you seem to be paying a big premium for the wireless features. It's $100 more than the Nikon P2, which also includes wireless. However, in our tests the Canon had a slight edge over the Nikon P2 in image quality, and the SD430's comparatively smaller design makes it an appealing choice for people who want a pocket-size camera and don't mind paying more for good images.

The Canon SD430 is attractively styled, but considering its poor battery life and noisy operation, its price isn't entirely justified.

Casio Exilim EX-S600

At just over half an inch thick, Casio's Exilim EX-S600 is one of the thinnest cameras in this group—it's small enough to slip into a shirt or pants pocket without causing unsightly bulges. It's also rather festive looking—available in three colors to coordinate with your outfits: Sparkle silver, Fiesta orange, and Mistral blue. The 2.2-inch LCD screen is clear and seems significantly brighter than the screens on previous Exilim models.

This slinky 6-megapixel camera's image quality is also quite appealing. In our tests, its image quality was above average, with strong and bright, but true-to-life, colors. However, the sharpness a bit lacking, and fine details were often lost in a haze.

The camera's images were also prone to noise, especially with the ISO setting at its maximum of 400. Areas of flat color had an almost bumpy appearance because of the noise. The EX-S600 includes an antishake mode, but instead of using optical stabilization, it works by boosting the camera's sensitivity to light. This comes at a cost, as pictures taken in this mode are prone to the

continues

POINT-AND-SHOOT DIGITAL CAMERAS COMPARED

Cameras were tested in conjunction with the PC World Test Center.

COMPANY	MODEL	MOUSE RATING	PRICE	CONTACT	RESOLUTION (MEGAPIXELS)	OPTICAL ZOOM	SIZE (WIDTH × HEIGHT × DEPTH, IN INCHES)	IMAGE QUALITY	BATTERY LIFE	PROS	CONS
Canon	PowerShot SD430	3	$500	www.canon.com	5.0	3.0×	3.9 × 2.1 × 0.9	Good	Flawed	Good image quality; good zoom range; compact size.	Poor battery life; zoom and focus mechanisms are noisy; expensive.
Casio	Exilim EX-S600	3½	$350	www.casio.com	6.0	3.0×	3.5 × 2.3 × 0.6	Good	Excellent	Thin body; comes in colors; bright LCD; true-to-life colors; huge selection of shooting modes; shoots high-quality movies; good battery life.	Images were a bit soft and had noise; no optical image stabilization; controls on the back are hard to handle.
Fujifilm	FinePix E900 TOP Product	4	$410	www.fujifilm.com	9.0	4.0×	4.0 × 2.5 × 1.4	Very Good	Very Good	9-megapixel sensor; 4× optical zoom; great image quality; sharp images; very little noise; optical viewfinder; great battery life; easy to use; good selection of manual controls.	Pop-up flash could be easily damaged; small, low-resolution LCD; manual focus is hard to handle; shutter lag; few shooting modes.
Kodak	EasyShare C663	3	$300	www.kodak.com	6.1	3.0×	3.3 × 2.5 × 1.4	Good	Very Good	Low price; software that helps exposures; good LCD; sharing feature helps you mark images; full manual mode; Last Burst shooting mode for capturing action; can create a video action print.	Indoor images had a green color cast; some details looked fuzzy; images were noisy even at low ISO settings; navigation joystick hard to maneuver; small buttons.
Kodak	EasyShare V570	3	$370	www.kodak.com	5.0	3.0× (5.0× combined)	4.0 × 2.0 × 0.8	Very Good	Flawed	Two lenses and CCD sensors; long zoom range wide-angle lens; good image quality; clear, bright LCD; easily accessible controls; sharing feature helps you mark images; in-camera panorama stitcher.	Camera must switch lenses while zooming; two lenses take up space; weak flash; no USB port; dock required to attach the camera to your Mac; short battery life.
Nikon	Coolpix P2	3	$400	www.nikonusa.com	5.1	3.5×	3.6 × 2.4 × 1.5	Good	Flawed	Wireless image transfer and printing; some manual controls; includes assorted scene modes.	Mediocre image quality; chunky build; short battery life; can't connect to new networks within camera's interface.
Olympus	FE-120	3	$230	www.olympusamerica.com	6.0	3.0×	4.2 × 2.2 × 1.4	Very Good	Flawed	Inexpensive; accurate color and exposure; light, slim body; comfortable to operate.	Images a little soft; small, low-resolution LCD screen; no manual controls; no video out for TV viewing.

Casio Exilim EX-S600

Picking the Perfect Camera

The right camera for you depends on the sort of photos you want to take. Party animals and casual shooters who want the smallest camera around will love the Casio Exilim EX-S600: it's small enough to fit comfortably into a pants pocket or a small handbag, but it still takes good pictures. The Kodak EasyShare V570 is also appealing: its unique two-lens design gives it a wider viewing angle, which makes taking group pictures easier.

If image quality is your primary criterion, the Fujifilm FinePix E900 takes the best shots, and its 9-megapixel resolution allows for large prints and cropping. Nature photographers and sports fans will appreciate the long 10× zoom on the Nikon S4; this huge range lets you zoom in really close on a subject from a distance (however, the camera doesn't have any image stabilization, so the pictures will benefit from the use of a tripod).

The wireless feature of the Canon SD430 and the Nikon Coolpix P2 (which allows you to transfer images to a computer over a wireless network) makes transferring and printing images a breeze. Canon didn't provide Mac software for these tests, but the company says it is forthcoming and may be available by the time you read this.

The $230 Olympus FE-120 and the $300 Kodak EasyShare C663 both provide great value for photographers on a budget: the Olympus in particular took great-looking images and is one of the least-expensive point-and-shoot cameras in this roundup.

same noise problems as pictures taken at high ISO settings.

A huge selection of other shooting modes is available—34 in all—including an interesting one designed to boost the colors of old photos. Rather than color-correcting a scanned photo, you take a picture of the old photo, and the camera performs the task.

In general, the camera is small, light, and fairly easy to handle. But shooters with big hands might find its thin profile a bit uncomfortable. With the zoom control situated on the back, gripping the camera can be a little difficult, as it's hard to hold the camera and adjust the zoom. All of the other controls are accessible through buttons on the back, too.

Having all the controls on the back can be a bit of a pain, especially because changing shooting modes is a two-handed job (and scrolling through the 34 different modes takes some time if you don't remember where to find the one you want). Since there's no control dial, you end up pushing a lot of buttons to reach some features and settings. Except for the shutter, there are no controls on the top of the camera.

Like most cameras, the EX-S600 can also double as a camcorder, shooting movies at up to 640 by 480 resolution and 30 frames per second in MPEG-4 format. The EX-S600 is unusual in that it allows you to use its Shake Reduction mode while recording movies. There is also a Past Movie mode, in which the camera is constantly recording video, so you can effectively start shooting a movie five seconds before you press the Record button. This feature is a nice touch, but you have to remember to select the Past Movie mode before you can take advantage of it.

Battery life is often a compromise with smaller cameras, but the EX-S600 doesn't have this problem. Its battery life was measured at 415 shots—pretty impressive, considering the small size of its rechargeable lithium ion (LiIon) battery. Many larger cameras don't last half as long.

With its fairly good image quality and compact design, the Casio Exilim EX-S600 is a fine choice for people on-the-go.

Fujifilm FinePix E900

Digital camera resolution keeps going up, and the Fujifilm FinePix E900 exemplifies this trend, as the first point-and-shoot camera I've seen with a 9-megapixel sensor. It's no slouch in the features department either, offering a long 4× optical zoom and Fujifilm's new Real Image Processor chip.

This camera produces very attractive images. Colors and exposures were vivid yet accurate in a variety of lighting situations, and the camera coped with daylight and studio setups equally well. With the most-impressive results in this group of cameras, the FinePix E900 earned the highest score for image sharpness by a sig-

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Fujifilm FinePix E900

PHOTOGRAPHS BY PETER BELANGER

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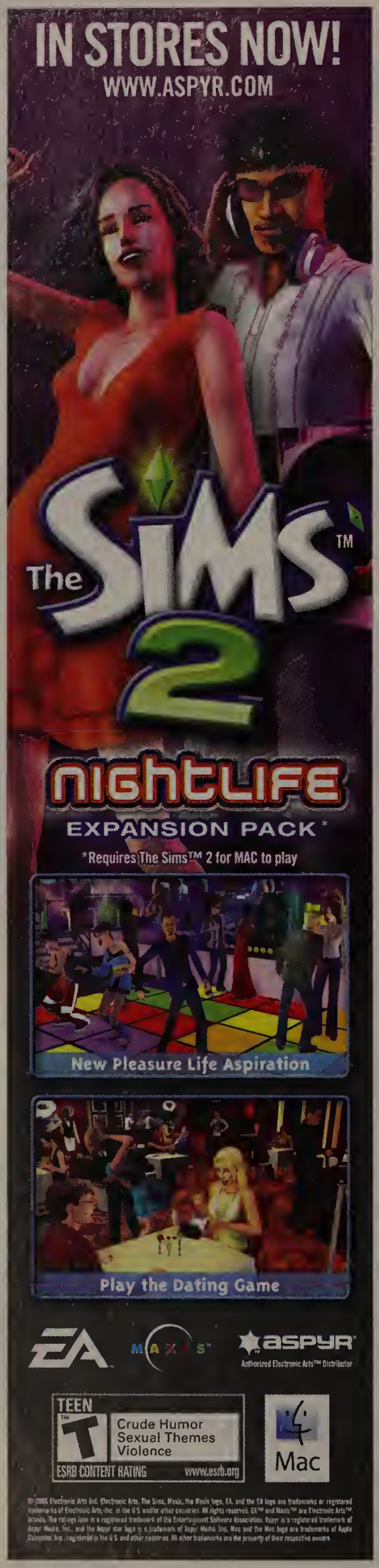

nificant margin. There was also little evidence of noise at lower ISO settings, although some noise appeared when we bumped the ISO to the maximum of 800.

The E900's case feels sturdy, and should stand up to knocks and bumps. The only possible concern is the pop-up flash on top: a small button positioned nearby opens it, and it could easily get caught on something and damaged if it accidentally opens inside a pocket or bag.

The LCD screen on the back of the camera was also a little disappointing. At just 2 inches and 115,000 pixels, it is much smaller than screens on many other cameras, and its lower resolution makes checking image focus difficult. It seems odd that the highest-resolution point-and-shoot camera in this batch would have one of the smallest and least-usable LCD screens. However, the E900 also has an optical viewfinder, which can replace the LCD for shooting and help save battery life.

Not that battery life is a problem: powered by two AA nickel–metal-hydride (NiMH) rechargeable batteries, the E900 lasted an impressive 326 shots in our tests, enough for a trip of several days. And you can swap out the included rechargeable batteries for a pair of disposable AAs—useful if you run out of power away from the charger.

Using this camera is a snap. The rounded bump on the front makes for a comfortable grip, and the shutter and zoom controls fall right under the index finger and thumb. You can access most of the controls through the on-screen menu by using the four-way control dial, which has a button for opening the menu and selecting options in the middle. A button at the bottom left of the back panel provides quick access to commonly used settings such as image size and quality, ISO, and color.

The camera also has a good selection of manual controls, including a full manual mode and aperture- and shutter-priority settings. There is no manual white balance, though; you must use either the presets or the automatic setting. Unfortunately, some of the controls are not easy to use. The manual focus is a particular pain: you have to press two buttons at once to change the focus point, and the small LCD screen makes it hard to determine when the camera is properly focused.

The E900 was pretty responsive, exhibiting a shutter lag of around half a second and taking about three seconds to start up. That's acceptable but not great—you could miss some shots if you aren't quick. These are minor complaints, though, and the camera works well in the automatic modes. You get only a few shooting modes (Natural Light, Portrait, Sports, and Night), but they should be enough to cover most situations.

Overall, the FinePix E900 is a good choice for people who want the simplicity of a point-and-shoot and the ability to take control when required.

Kodak EasyShare C663

Kodak's 6.1-megapixel EasyShare C663 is not only easy on the wallet at $300, but also the first camera to include a digital version of the company's Perfect Touch technology, which is used in Kodak film minilabs to correct exposure. Perfect Touch does a pretty effective job of bringing out shadow detail in images and generally improving the appearance of photos taken in high-contrast lighting situations, such as indoors with a flash.

Kodak EasyShare C663

The Kodak EasyShare C663 offers limited manual controls.

The EasyShare C663's image quality was good but not exceptional, and its image-quality scores were roughly average. Colors tended to look realistic (if a little dark), and exposure was typically accurate, but indoor still-life shots exhibited a green cast. Photos looked reasonably sharp, although there was some fuzziness in some edges and fine details. The camera's maximum ISO setting

continues

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is 800, but only at very low resolutions; ISO 400 is the maximum for 6.1-megapixel photos. Even so, I saw noise in images shot at only ISO 200.

The C663's plastic case feels flimsy, and it has a curiously retro boxy look. The camera's LCD screen is a good size and a reasonable resolution (2.5 inches and 115,000 pixels), and it dominates the back panel, leaving only a relatively small amount of space for the buttons. The display looks good in most lighting situations and is viewable in all but direct sunlight.

Most of the controls are accessible through the on-screen menu, which includes both icons and text labels for easy navigation. A joystick helps you navigate, but it's a little small and it's too easy to push the wrong way by accident. The C663's other buttons are also rather small; if you aren't looking closely, you could easily press the Menu button instead of the Review button. Additionally, the buttons for setting the shooting and flash modes are oddly located on the top of the camera, so you'll need both hands to change them. A Share button above the LCD screen allows you to mark images for printing or add them to a favorites list, where they are displayed when you set the mode dial on the top of the camera to do so—this last feature could be useful if your camera has to double as an album for showing off your favorite photos.

The C663 is aimed at point-and-shoot users, so, unsurprisingly, it offers limited manual controls. It has a full manual mode but no aperture- or shutter-priority settings, which tend to be more useful. One interesting touch is its Last Burst shooting mode, which lets you keep taking pictures indefinitely while the camera saves the last four images. This feature could be useful for situations where you aren't certain when something is going to happen but you want to make sure you capture it. If you're photographing a horse race, for instance, you could hold down the shutter button to keep taking pictures, releasing it when the horses have passed; the camera would then retain the last four images. However, this feature is limited because the camera takes only two shots a second, not really enough to capture high-speed action.

The camera can capture video at a resolution of up to 640 by 480 pixels, at 24 frames per second, with sound. It can also automatically create what Kodak calls a video action print—a still image composed of 4, 9, or 16 frames from the video—an interesting idea, and pretty effective. A video action print from a short clip of a sports event, for instance, could tell a good story.

The Kodak EasyShare C663 is a reasonably good camera at a good price. Its image quality is good, and it offers most of the features that point-and-shoot users will need. And the Perfect Touch processing can make a big difference in image quality; it's a feature that may make the camera attractive for folks who just want to take pictures without fuss.

Kodak EasyShare V570

The Kodak EasyShare V570 is the first point-and-shoot camera in the United States to include two separate lenses and CCD sensors: one set for wide-angle shots and the other for telephoto. But this interesting approach has drawbacks as well as benefits.

Kodak EasyShare V570

On the positive side, the two lenses enable the camera to offer a long zoom range without having a lens protruding from the front. The two lenses (a fixed 23mm lens and a 32mm-to-117mm zoom lens) give a combined zoom range of 5×, while most compact cameras provide only a 3× zoom. The camera's wide-angle lens can be a big plus if you are taking group shots.

On the downside, the camera must switch from one lens to the other while zooming, and this results in an annoying pause of a half-second or so. Since it pauses the zoom while making the switch, going all the way in from a wide-angle shot requires that you zoom, pause, and then zoom again.

Another annoyance is that the two lenses and sensors take up space, which may be why

continues

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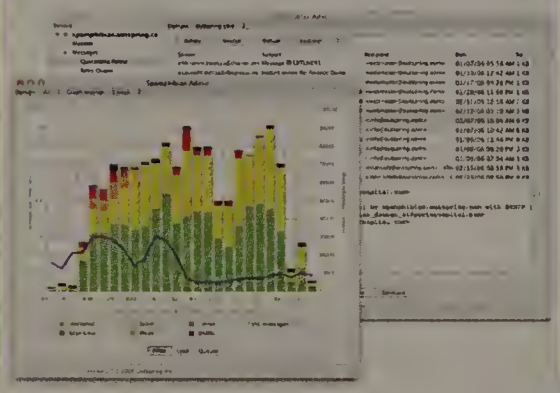

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the camera captures images at a 5-megapixel resolution when most other compact cameras shoot at 6 megapixels or higher. Of course, resolution is not the end-all and be-all of image quality, but having the ability to enlarge images is nice, and the 5-megapixel resolution is a limitation.

Despite those disadvantages, the Kodak V570's image quality was impressive. It produced sharp images that exhibited bright colors and accurate exposures. The small built-in flash was a little weak, though, penetrating no more than a few feet in a dark room.

The camera's 2.5-inch LCD screen, which dominates the back, is clear and bright; with its 230,000 pixels, image previews look sharp. The camera's controls reside around the screen, and are generally easily accessible. While most other cameras use a left-right control for zooming, the V570 uses an up-down control, which works well. It allows you to keep your thumb firmly on the camera for a tight grip—a good thing, since there is no grip on the front for your fingers. The smooth surface on the front and sides can mean a loose grip if your hands are damp.

A small joystick below the zoom control lets you navigate the on-screen menus. Although you can operate the camera with one hand, using it with both hands feels more natural, and that's probably why Kodak put the flash-control button on the left side, above the buttons for deleting images, accessing the on-screen menu, reviewing images, and sharing (you can mark images for printing or e-mailing through the Kodak EasyShare software).

Another interesting feature of the V570 is its panorama stitcher. Most cameras allow you to take several shots and then use software to join them together, but the V570 handles the task itself, joining up to three images. It does a reasonably good job, but you can still get better results by using a separate program dedicated to this purpose.

The V570 requires the included dock to connect to your Mac, as it has no USB port. The dock holds the camera above the surface at a slight angle, so you can use it to display photos. Several lights on the dock show the battery status, and a button enables the USB connection. It's a pity, though, that you can't connect the USB cable to the camera itself; if you go on a trip and want to transfer your images to a laptop, you have to take the dock with you. Battery life was disappointing as well: the V570's rechargeable LiIon battery ran out after 200 shots.

The EasyShare V570 delivers high image quality and provides a wide zoom range in a compact package, but short battery life and a few quirks reduce its appeal.

The Nikon Coolpix P2 includes a wireless adapter that allows you to transmit images to your Mac.

Nikon Coolpix P2

With its easy-to-use controls, nice selection of advanced features, and Wi-Fi connectivity, the Nikon Coolpix P2 is enticing. It has a 3.5× optical zoom, a 2.5-inch LCD with a 110,000-pixel screen, and a 5.1-megapixel sensor.

The P2 includes an 802.11b-g wireless adapter that allows you to transfer images wirelessly to your Mac. To connect the P2 to a wireless network, you have to install and

Nikon Coolpix P2

PHOTOGRAPHS BY PETER BELANGER

run the Nikon Wireless Camera Setup Utility, which is a pretty simple process. (However, you need to do this each time you connect to a new network—you can't connect to a new network through the camera's interface.) You can then wirelessly transfer images to the included Nikon Picture Project photo-management software. The wireless setup utility also allows you to print wirelessly, so you can output images over a network to any connected printer. Once you configure the software, you can print straight from the camera instead of through your Mac.

While the wireless image transfer is a nice feature, I found the P2's image quality less appealing. The pictures weren't particularly bad; they just weren't that good when examined alongside the images of other similarly priced cameras. The colors were acceptable (if a little dark), and the images were reasonably sharp. As the P2 is a point-and-shoot camera, its lack of a full manual mode is not surprising. You do get some control via an aperture-priority mode (there's no shutter-priority mode) and both white balance and exposure bracketing.

The P2's case feels well built and robust, yet at 1.5 inches thick it's a little too chunky to fit comfortably in a pocket. But the P2 is a pretty simple camera to shoot with. It fits well in your hand, with a handle on the right providing a good, solid grip. Its shutter control falls naturally where you would place your index finger, while the zoom buttons fall under your thumb.

Olympus FE-120

A dial on the top lets you switch between modes, as well as adjust ISO and white balance settings. This design feature is convenient, because otherwise those settings are buried in menus. Accessing the ISO through the on-screen menu took 14 button presses, which isn't conducive to quick shooting.

The camera includes 11 different scene modes—you access them by putting the Mode dial into the Scene position and pressing the Menu button—and they cover the usual range of shooting situations, such as portrait and night. One interesting mode, Copy, shoots in black and white at high contrast for photographing text on a white background. It would likely prove useful if you were on a spy mission and needed to shoot secret documents.

continues

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The P2 lasted a disappointing 201 shots in our battery tests, compared with the average of 278 for recently tested point-and-shoot models.

Despite the Coolpix P2's wireless connectivity and some advanced controls, this camera's unexceptional image quality and limited battery life fail to justify its price.

Olympus FE-120

Despite its $230 price tag, this 6-megapixel unit delivered very attractive photos, earning top points for its accurate colors and spot-on exposure. However, the images lacked sharpness: some high-contrast edges and fine details had a blurry and indistinct appearance.

The FE-120's case resembles a bar of soap, with rounded edges and recessed buttons. At just over 1.4 inches thick, it's slim enough to fit into a coat pocket or handbag, and at just over 5 ounces, it won't weigh you down. Its 3× zoom lens telescopes out of the front when you turn it on, and the controls sit nicely under your fingers when you hold the camera. Two buttons to the right of the screen allow you to flick quickly between Playback and Recording mode, and the mode dial is just below the zoom control; all are within easy reach of the thumb.

In order to keep the price down, Olympus has cut some corners. For one thing, the FE-120's 1.8-inch LCD screen is rather weak: It's small, low in resolution (85,000 pixels), and hard to see in daylight—even indirect sunlight makes the display look pale and washed out. There is also no microphone for capturing sound to accompany the video the camera can record.

Photographers who want manual controls won't like this camera, as all of its controls are automatic. You can't set the ISO manually, and you get no shutter- or aperture-priority settings and no manual focus. White balance is fully automatic as well; you can neither set it manually nor use presets. The FE-120 also omits a video output for viewing images on a TV.

The Olympus FE-120 will appeal to people happy with automatic controls.

Though all of these issues are fairly minor, in the end this camera will appeal mostly to people who are happy with automatic modes. Experienced photographers will likely find the lack of manual controls frustrating.

Macworld's Buying Advice

Although it is one of the most expensive cameras that was tested in this roundup, the $410 Fujifilm FinePix E900 takes the best-quality images; they were sharp and had bright, vivid color. The E900 also has a good selection of controls that allow for some creativity without detracting from its point-and-shoot ease of use, making it a great pick for the aspiring photographer.

But for the many people who might not want or need these features, the $230 Olympus FE-120 is a simple, inexpensive, easy-to-use camera that'll give you good-looking pictures without any fuss.

Falling between these two extremes of quality and price, the $350 Casio Exilim EX-S600 is the smallest of the cameras in this group, and this may make it very appealing if you want to carry a camera around with you at all times. It's a pity that the images lacked sharpness, but if you want a camera on hand in case you encounter a photographic opportunity that will never repeat itself, the EX-S600 is the one for you. □

RICHARD BAGULEY is a freelance writer based in the San Francisco Bay Area.

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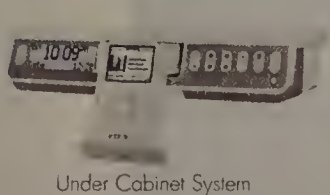

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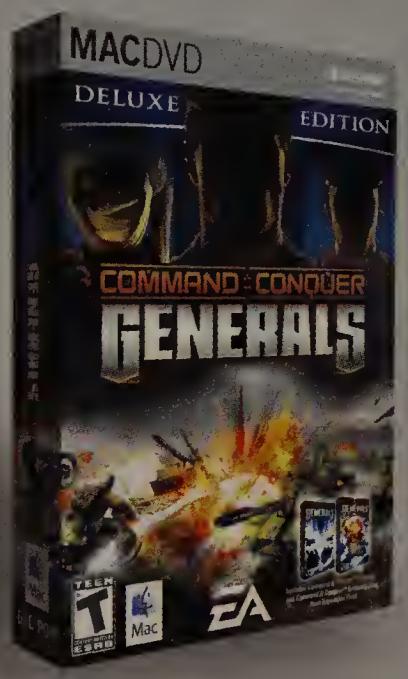

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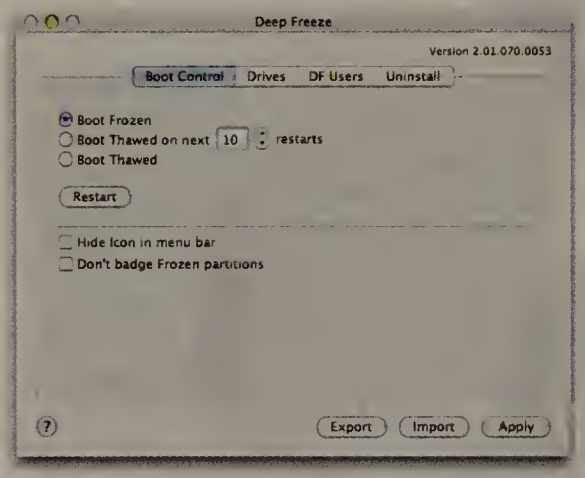
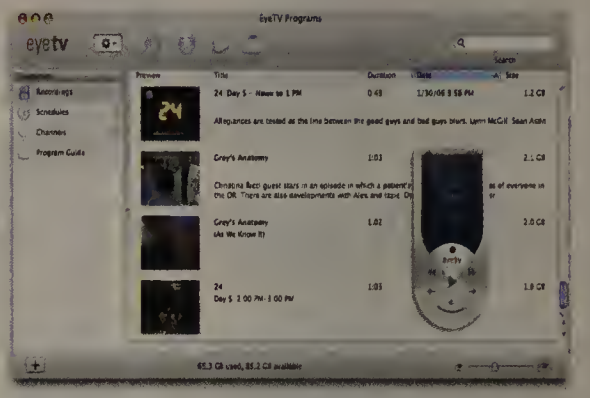
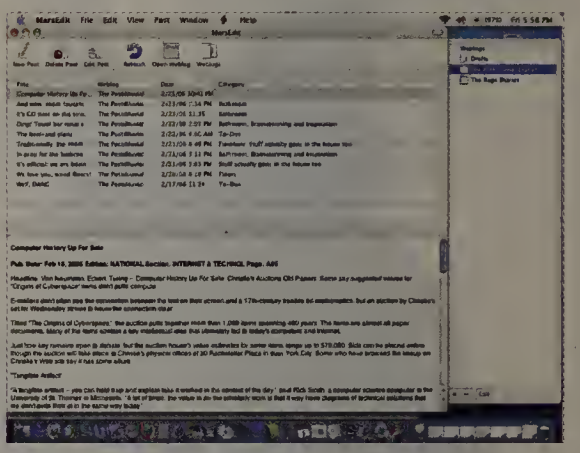


★★★★½ **Deep Freeze Mac 2.0** ▲ ($30), from Faronics Technologies (www.faronics.com): Deep Freeze Mac 2.03 is a straightforward, easy-to-use utility that automatically resets a Mac to pristine condition after a restart. It can save system administrators hours of cleaning and troubleshooting public Macs, but it's also a great way for individual users to try new software or download files safely without worrying about how to undo the damage if things go wrong (macworld.com/1242).

★★★½ **MarsEdit 1.1** ▶ ($25) from Newsgator Technologies (www.newsgator.com): MarsEdit 1.1 is a desktop-based tool for posting entries to Weblogs. If you maintain multiple blogs and are comfortable with HTML, MarsEdit could be useful for quickly writing, saving, and publishing posts. It's best for experienced bloggers who want to tweak their publishing process. It's not for blogging beginners (macworld.com/1241).



★★★★½ **EyeTV 2.1** ▲ ($79), from Elgato (www.elgato.com): For the past several years, Elgato's EyeTV line of personal video recording products (along



MANAGING BUSINESS FINANCE

Mac Accounting Programs

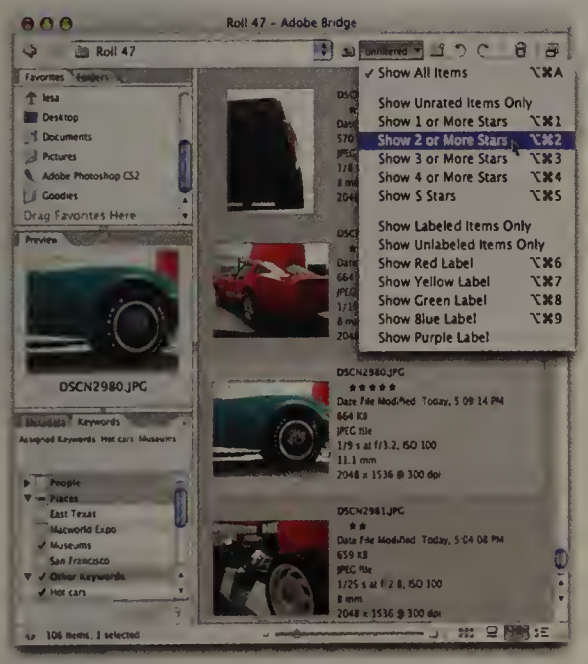
★★★★½ **AccountEdge 2006** ($299; upgrade, $139), from MYOB (www.myob.com/us): AccountEdge is aimed at larger businesses that need to keep records on a variety of information, including inventory items, time tracking and billing, purchase orders, and partial shipments from vendors. AccountEdge 2006 features an improved electronic time sheet that allows you to enter time and billing information easily for both hourly employees and jobs. It can process credit cards, can handle the majority of Web banking file formats with ease, and includes built-in payroll tools (macworld.com/1243).

★★★★½ **FirstEdge 2.0** ($99; upgrade, $79), from MYOB (www.myob.com/us): MYOB FirstEdge 2.0 is designed to handle small-business accounting basics such as income, expense, asset, and liability accounts, as well as sales, quotes, invoices, basic reporting, and company analysis. It's a good option for people who don't need advanced financial features (macworld.com/1243).

★★★½ **QuickBooks Pro 2006** ($200), from Intuit (www.quickbooks.com): For people who are looking for a Mac accounting program that's easy to use, Intuit's QuickBooks Pro 2006 for Mac is the least-intimidating application on the market. Its compatibility with Apple apps such as Address Book and iCal, as well as its integrated payroll tools, is quite useful (macworld.com/1243).

with the products of the hardware partners that license its software) has been the gold standard of TV viewing and recording for Macs. With the release of EyeTV 2.1 (which runs on both PowerPC and Intel Macs), Elgato adds many useful features, including a built-in programming guide, that make this update worthwhile. The change that will be most obvious to users is its redesigned interface (macworld.com/1239).

MPEG4 Recorder 2 ▲ ($150), from Neuros Audio (www.neurosaudio.com): Neuros's MPEG4 Recorder 2 is useful if you're looking for the fastest, easiest way to make legal iPod- or Sony PlayStation Portable–compatible recordings from DVDs or most other video sources. One of Recorder 2's biggest advantages is that because it records analog video, users can make legal copies of DVDs they own. Another plus is speed—since the device records MPEG-4 video in real time, it's faster than traditional QuickTime Pro encodes (macworld.com/1240).



Photoshop Elements 4.0 ▲ ($90; upgrade, $70), from Adobe (www.adobe.com): With an eye toward Photoshop Elements' core audience of non-professional photography enthusiasts, Adobe has made improvements to Elements that make using the program for editing, organizing, and sharing digital photos easier than ever. Despite Elements' consumer-level price tag, Photoshop Elements 4.0 sports some new tools that professionals might wish the full version of Photoshop included (macworld.com/1238). ❑

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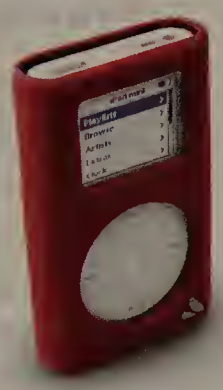
iPod Mini Cases

Mini Shock ($20), from Agent 18 (www.agent18.com): Agent 18's Mini Shock has it all: attractive design, good protection, and versatility. The two-piece body, made of sturdy white plastic, has thick rubber along the top and bottom to absorb the impact of a fall. Four rubber bumpers inside the case provide even more shock protection. And you can remove the case's back panel and replace it with your mini's belt clip or an Apple Armband, without sacrificing protection (macworld.com/2101).

TrailVue for iPod mini ($20), from Marware (www.marware.com): Unlike the many leather flip cases, Marware's TrailVue case is made of ballistic nylon with rigid inserts in the front and back that keep your iPod safe from bumps and bruises. A Velcro closure holds the flip cover shut. The TrailVue is a rare case that looks and feels both rugged and sporty, and it's available in seven stylish color combinations (macworld.com/2179).

iSee mini ($20), from Contour Design (www.contourcase.com): The iSee mini protects your mini from scratches and bumps without diverting attention from its colorful good looks. Because the top of the case is flush with the top of your iPod, you can still use top-mounted accessories such as FM transmitters and remote-control receivers. As with the Mini Shock, you can remove the back of the iSee case and replace it with your iPod mini's belt clip (macworld.com/1227).



i-Volution mini ($60 and up), from Vaja (www.vajacases.com): Vaja's full-grain leather cases are handcrafted, custom made, and feature an impressive attention to detail. The rigid, semipadded i-Volution is a slip-on hard-shell case with a clear protective face; it looks great and works well. Like other Vaja cases, the i-Volution is pricey, but if you appreciate handmade quality, you'll enjoy this case (macworld.com/1228).

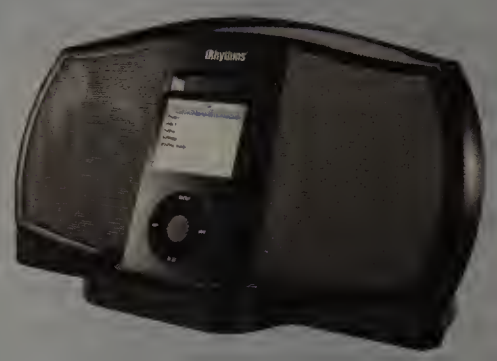
iPODS

Product	Capacity	Rating	Price	Display	Battery-Life Maximum	Media Supported	More Information
iPod	30GB	4½	$299	2.5-inch color	14 hours of music playback, 3 hours of slide shows with music, 2 hours of video playback	music, photos, album art, video	macworld.com/1020
iPod	60GB	4½	$399	2.5-inch color	20 hours of music playback, 4 hours of slide shows with music, 3 hours of video playback	music, photos, album art, video	macworld.com/1021
iPod nano	1GB	4½	$149	1.5-inch color	14 hours of music playback, 4 hours of slide shows with music	music, photos, album art	macworld.com/1175
iPod nano	2GB	4½	$199	1.5-inch color	14 hours of music playback, 4 hours of slide shows with music	music, photos, album art	macworld.com/1022
iPod nano	4GB	4½	$249	1.5-inch color	14 hours of music playback, 4 hours of slide shows with music	music, photos, album art	macworld.com/1023
iPod shuffle	512MB	4½	$69	N/A	12 hours of music playback	music	macworld.com/0368
iPod shuffle	1GB	4½	$99	N/A	12 hours of music playback	music	macworld.com/0369

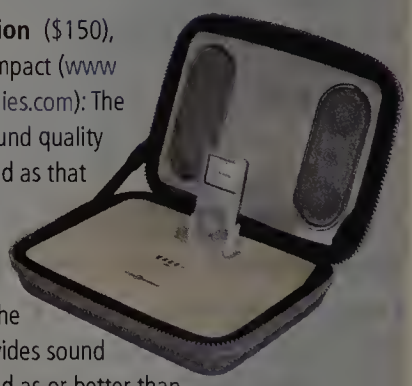
N/A = not applicable.

NEW: iPOD SPEAKERS

iPod Hi-Fi ($349), from Apple Computer (www.apple.com): Apple made some big claims when introducing the iPod Hi-Fi, calling it an "audiophile-quality" system. That claim may be an exaggeration, but the Hi-Fi is an attractive option for people looking for good, room-filling sound in a compact package. It's a bookshelf system for the iPod generation, and you can even take it with you in a pinch (macworld.com/1215).



iRhythms A-302 and **A-303** ($180), from Cyber Acoustics (www.cyberacoustics.com): Lower-priced alternatives to the $300 Bose SoundDock, the iRhythms A-302 and A-303 (the same product in white and black, respectively) provide a universal dock, an infrared remote, and an auxiliary audio input. The iRhythms will be interesting to many iPod owners looking to enjoy their music on a desk, a dresser, or a kitchen counter. The iRhythms models give you slightly more presence at the low end than the SoundDock, while the SoundDock provides significantly better detail and clearer midrange and still sounds relatively smooth from top to bottom (macworld.com/1229).



i-Fusion ($150), from Sonic Impact (www.si-technologies.com): The i-Fusion's sound quality is not as good as that of Logitech's similarly priced mm50, but the i-Fusion provides sound that's as good as or better than that of most other portable systems in this price range. The i-Fusion is also much more rugged and stores your iPod and earbuds for travel. If you want to bring a set of iPod speakers on the road without worrying about how baggage handlers will treat your luggage, the i-Fusion is worth a look (macworld.com/1095).

The Bose® QuietComfort® 2 Acoustic Noise Cancelling® Headphones.

Think of them as a reprieve from the world around you. Whether it's the engine roar inside an airplane cabin, the bustle of the city or the distractions in the office, Bose QuietComfort® 2 headphones help them fade softly into the background with the flick of a switch. You can savor delicate musical nuances without disturbing others. And when you're not listening to music, you can slip into a tranquil haven – where you can relax and enjoy peace and solitude. Clearly, these are no ordinary headphones. It's no exaggeration to say they're one of those things you have to experience to believe.

Use them as a concert hall – or a sanctuary.

Reduce noise with Bose technology. Our headphones were designed primarily for airplane travelers. But owners soon started telling us how much they enjoy using them in other places to reduce distractions around them. Bose QC™2 headphones incorporate patented technology that electronically identifies and dramatically reduces noise, while faithfully preserving the music, movie dialogue or tranquility you desire. *Technologyreview.com* reports, "It's as if someone behind your back reached out, found the volume control for the world, and turned it way, way, down." Perfect for listening to music, whether you're on the go, at home or in the office.

Enjoy your music with our best headphone sound quality ever. When QC2 headphones were first introduced, *CNET* said, "All sorts of music – classical, rock, and jazz – sounded refined and natural." *Travel & Leisure Golf* said, "Forget 'concertlike' comparisons; you'll think you're onstage with the band." The audio is so crisp and clear, you may find yourself discovering new subtleties in your music.

"The QuietComfort 2 lives up to its name...It's easy to forget they are on your head." That's what columnist Rich Warren says. To enjoy peace and tranquility, simply turn them on. To add Bose quality sound, attach the included audio cord and connect them to a home stereo, laptop computer, portable CD/DVD/MP3 player or in-flight audio system. They also offer a fold-flat design for easy storage in the slim carrying case.

Try the QC2 headphones for yourself, risk free. Our 30-day, in-home trial guarantees your satisfaction. If you aren't delighted, simply return your headphones for a full refund.

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Intego VirusBarrier X4

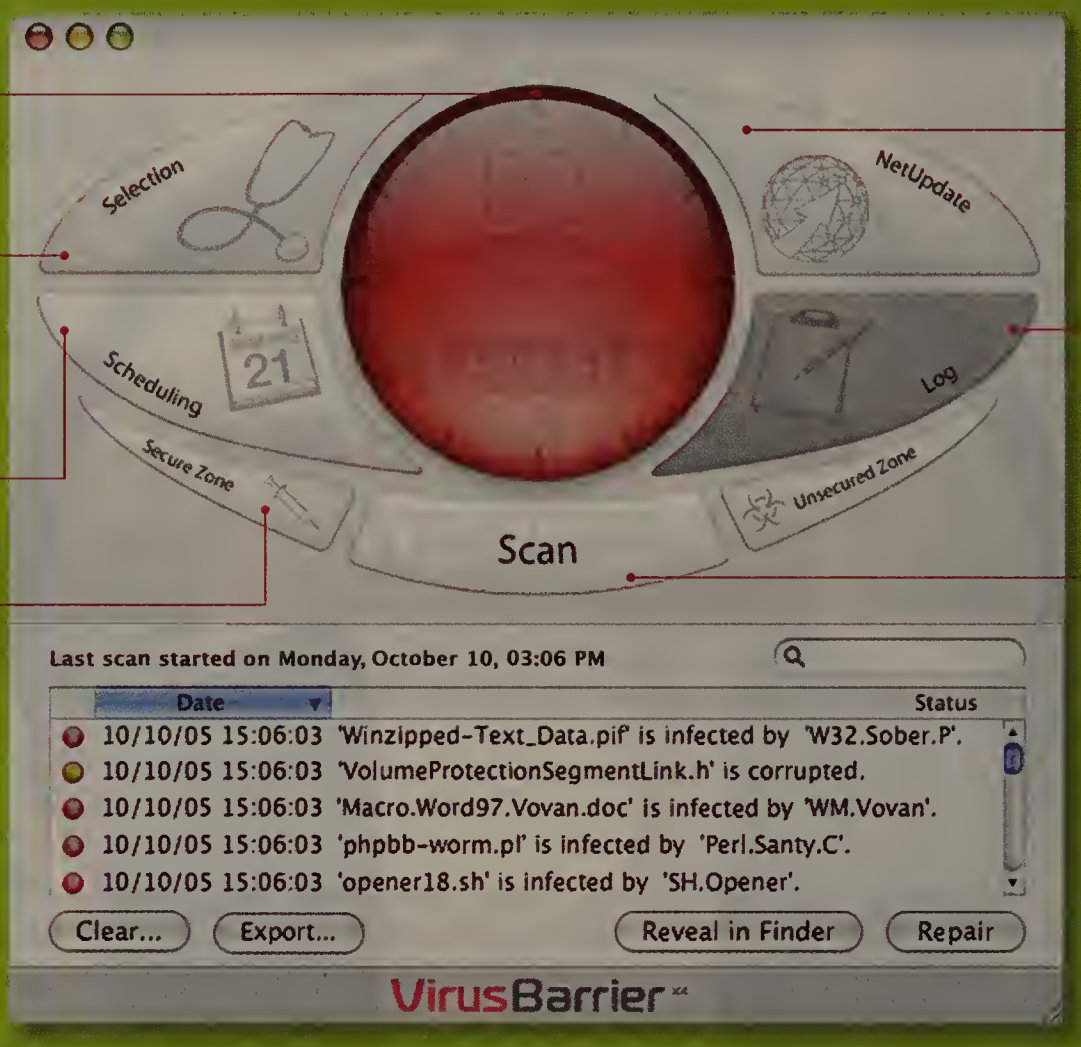
The acclaimed antivirus program for the Mac

Multi-function Orb
The change in color of the Orb indicates the presence of an infected or damaged file.

Selection
Choose the data to be scanned in the dialog box with a simple click.

Scheduling
Schedule regular or specific scans of your volumes and view them in Apple's iCal.

Reinforced security zone
Decide for yourself the best level of security for your files and folders.



NetUpdate X4
Automatically or manually check the availability of updates or virus definitions.

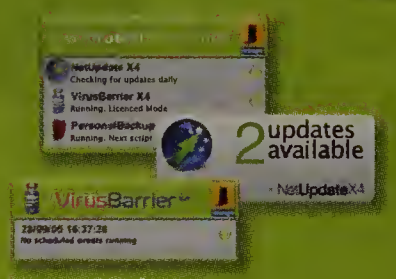
Complete log
Display all analysis logs of your volumes and files with a single click.

Analysis
Turbo Mode technology analyzes your data up to 40 times faster.

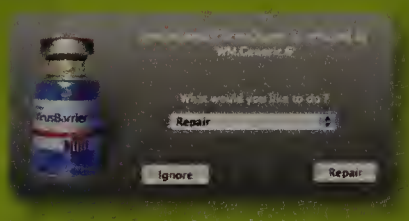
Eradicates All New Malware:
OS X.Exploit.Metadata
Oompa-Loompa (OSX/Oomp-A, Leap.A)
Inqtana.A-B-C Bluetooth Worm

For Macs with PowerPC or Intel processors

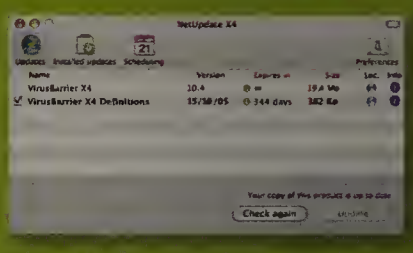
intel Core Duo



Intego Widgets
Discover, under Tiger, new Intego Widgets informing you of the status of your protection, the availability of updates, and scheduled events.



Repairs your infected documents
VirusBarrier X4 alerts you to the presence of viruses and repairs damaged or corrupted files.



Your updates with NetUpdate X4
Easily schedule, check and install new virus definitions and updates for all Intego software installed on your Mac.

Main features of VirusBarrier X4

- Detects and eliminates all known viruses
- Repairs infected files
- Turbo Mode technology (up to 40 times faster)
- Simple, effective and non-intrusive
- New dynamic resizable interface
- Scans incoming and outgoing e-mail
- New Intego menu
- VirusBarrier X4 Widget and Intego Widget
- Scheduled scans
- Detailed log
- Reinforced security zone
- Heuristic and behavioral analysis
- Blocks virus execution
- New multi-function Orb
- New alert management
- File analysis by the Intego Virus Monitoring Center
- File creation and modification detection
- Temporary antivirus deactivation
- Easy integration with other Intego programs
- Management of compressed files
- Contextual Menu
- Updates via NetUpdate X4

Mac Universal

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Game Room

BY PETER COHEN

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News Feed

GameRanger Improved

GameRanger 4.5, the latest version of the Mac-compatible game-hosting and chat service, dramatically simplifies online gaming. The free update lets you host online games without having to reconfigure your router or firewall (www.gameranger.com).

Griffin Goes PSP

iPod accessory maker Griffin Technology has turned its attention to Sony's PlayStation Portable (PSP). The first three PSP products include an FM transmitter, an FM radio and remote control, and a headphone splitter with independent volume controls (www.griffintechnology.com).

Avernum Trilogy Released

Spiderweb Software has released a compendium CD of the first three titles in its Avernum role-playing adventure game series. The $45 disc offers weeks—if not months—of play and is OS 9–compatible (www.spidweb.com).

ICONS BY PAUL HOWALT

The Circle of Life How well you balance the Serengeti's ecology determines your success in Wildlife Tycoon: Venture Africa.

SIMULATION

Wildlife Tycoon: Venture Africa

The circle of life is on ready display in Wildlife Tycoon: Venture Africa, a new simulation and strategy game from Pocketwatch Games and MumboJumbo. Herbivores eat plants, carnivores eat meat, and all life needs water to survive. Your job, as the invisible but omnipotent player, is to build and maintain the delicate balance of life and death and to help a rich African ecology thrive. The game is simple enough for even young players to learn and master.

Each level begins around a body of water. You then add various plants and animals. Eleven different animals are available, including zebras, elephants, crocodiles, lions, flamingos, and hares. You have a specific goal in each level. For example, you may need to create an ecosystem that can sustain four lions—to do that, you need to make sure the zebras, on which the lions feed, have enough to drink and eat. But be careful that the hungry lions don't thin the zebra's herd too much.

When you complete certain challenges, you earn Combo Jewels. Cash them in to plant new shrubs or grasses for your herbivores, or to make sure your watering holes are full of drinkable water. Challenges become increasingly complex. You can also choose from three levels of difficulty. And the game includes a sandbox mode—an open-ended mode that lets you work on your ecosystems for as long as you can sustain them.

RATING: ♦♦♦♦
PROS: African animals have family appeal; multiple difficulty levels; sandbox mode.
CONS: Modest graphics; no printed instructions.
PRICE: $20
OS X COMPATIBILITY: 10.2 (Jaguar), 10.3 (Panther), 10.4 (Tiger)
PROCESSOR COMPATIBILITY: PowerPC
COMPANY: MumboJumbo, www.mumbojumbo.com

Despite the game's modest 3-D graphics, it manages to bring the creatures of the African savannah to life. You'll hear the high-pitched whinny of the zebra and the roar of the lion.

My kids—all of whom want to someday save endangered animals—instantly glued themselves to my side whenever I fired up the game. The developer, Pocketwatch Games, promises to donate a percentage of the proceeds of game sales to programs that preserve wildlife habitat.

One cautionary note: the game doesn't include any printed documentation, though a Read Me file you'll find on the CD provides some instructions.

The Bottom Line Wildlife Tycoon: Venture Africa is a simulation and strategy game that places an emphasis on understanding nature, not destroying things. It's a nice change of pace.

continues

PUZZLE

Enigmo 2

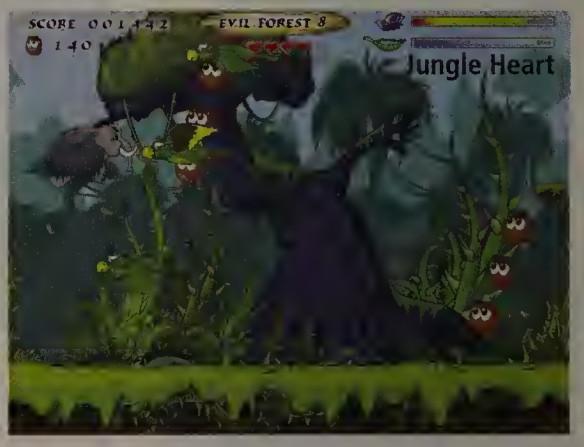
♦♦♦♦; Pangea Software, www.pangeasoft.net; $30

Enigmo 2 is a beautiful and challenging kinetic puzzle game in which you direct water, plasma, or laser beams into receptacles. If that sounds simple, think again. These receptacles are often hidden behind walls, force fields, or other obstacles.

To circumvent the obstacles in the multiple puzzles, the game provides you with a limited supply of objects such as switches, teleporters, gravity inverters, and so on. The 3-D puzzles, which you can rotate in any direction, are colorful and richly detailed against the majestic backdrop of outer space. In fact, the game is just as much fun to watch as it is to play.

Enigmo 2 is family-safe, though I suspect that it might overwhelm anyone younger than ten. Pangea has also included a less challenging Kiddie mode, which gives players unlimited tools to accomplish their tasks, though they're still timed.

When you've played all 50 levels, you can use the game's built-in level editor to make more. At $30, Enigmo 2 is a little on the expensive side—you can download a trial version of the game before you buy (macworld.com/1230).



ARCADE

Jungle Heart

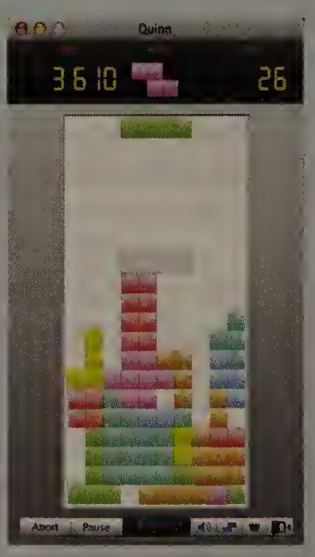
♦♦♦♦½; White Elephant, www.elephant-games.com; $20

Jungle Heart is an endearing, kid-friendly side-scrolling action game. It tells the story of Joy, a flying elephant who's on a

Top Downloads

Quinn 3.1

♦♦♦♦; Simon Härtel, www.simonhaertel.de.vu; free



Quinn is a remake of the most addictive puzzle game ever created—Tetris. But while most Tetris knock-offs have tried to muck around with the basic rules of the game, Quinn sticks with the idea that if it ain't broke, don't fix it. However, this doesn't mean there aren't plenty of nice touches here.

Like Tetris, Quinn features geometric shapes that descend from the top of the screen. You have to rotate and position the falling blocks to form complete rows and earn points. If you fail to finish rows, the blocks pile up, leaving you less room to maneuver.

In addition to the graphics included with the game, you can also download new graphics from Härtel's Web site. The graphics range from mild to wild—everything from a nighttime cityscape to a spooky gothic theme complete with skull-shaped blocks (my particular favorite).

You can edit keyboard settings to create your own control configuration. The game also supports network gaming. You can join or host a game on your local network via Bonjour. But there's no master server, so if you want to start a multiplayer game beyond your network, you'll need to know the player's TCP/IP address. When playing over a network, you can require a password before others can access the game (macworld.com/1234).

quest to discover why bad animals and horrible storms have besieged Banana Land. Joy can use his trunk to fire water—and sometimes ice—at his numerous enemies, including flocks of birds, crocodiles that look like dinosaurs, and even bosses—tough bad guys.

The action isn't too violent—for example, birds disappear in a drifting cloud of feathers, so it's appropriate for children. The action is set in an irresistibly cute animated environment that looks like something straight out of a Disney film.

It's clear, however, that the developers were working with English as their second language—the narration is awkward and sometimes grammatically incorrect. This weakness may make some parents hesitate to pass it along to young players.

Jungle Heart also lacks documentation (aside from help screens) and other niceties such as the ability to switch to a windowed mode. But none of these flaws is so severe as to detract from an otherwise charming game (macworld.com/1231).

EDUCATIONAL GAME

Blue Takes You To School

♦♦♦♦; MacSoft, www.macsoftgames.com; $20

In the friendly and low-key Blue Takes You To School, young players (ages 3 to 6) help Blue and her friends discover neat things about the world around them.

Set in Miss Marigold's classroom, the game lets players participate in a variety of activities such as matching rhythms played by Blue and her pals or making works of art. Additional activities involve feeding and caring for the class pet, directing toy boats around obstacles, and exploring nature.

Up to three players can join in the fun. Each is assigned a cubby with his or her name and a picture. The game also offers lots of support for parents. A printed manual describes each activity's educational value and includes ideas for extending learning while away from the Mac (macworld.com/1232).

SIMULATION

The Sims 2 Nightlife

♦♦♦♦; Aspyr Media, www.aspyr.com; $30

If you already own Aspyr's The Sims 2 and you're getting bored with it, check out The Sims 2 Nightlife, an expansion pack that adds new options to the game.

The Sims 2 Nightlife opens a new downtown area where your Sims can go clubbing, visit the bowling alley, and more. A new Pleasure Seeker life aspiration encourages your Sims to experience the finer things in life. Going on dates and having gourmet meals amp up this life aspiration and make your Sims happy.

Many nifty new objects are available to enjoy—such as a DJ booth, a poker table, and a coffin (just the thing for a resting Sim vampire—another new addition). Sims can also now buy their own cars. Of course, once you have this cool stuff, you won't want to leave it behind. Sims can now maintain a personal inventory, so they can take stuff with them—useful when moving into new digs.

Sims are very social creatures—maybe a bit too social. In fact, I found it hard to keep my Sims from developing instant, lasting friendships and romantic connections with everyone they met. And though that's certainly a nice fantasy, it doesn't make for very challenging game play (macworld.com/1233). □

Ever since he loaded up Quinn, Senior Editor PETER COHEN has been seeing falling blocks whenever he closes his eyes.

GRIFFIN

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- Ports include: S-video, Composite video, RCA left and right audio, NTSC/PAL switch, Ethernet - RJ45 10-100base T, WiFi - Internal 802.11b
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TuneCenter

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iTrip® nano FM Transmitter for iPod nano $49.99

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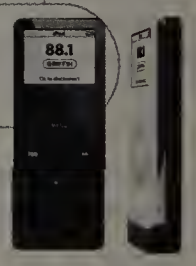
- SmartDisplay™ technology seamlessly integrates all functions and features with the iPod nano



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- Great for car trips, plane flights and more
- Compact and lightweight

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IMAGE VIEWER

MilkyWay 1.5.6

A couple of years ago, I wrote about QuickImage CM (★★★★½; *Mac Gems*, macworld.com/1207), a contextual-menu plug-in that lets you view—and even edit—image files in the Finder. But if you found QuickImage CM too inconvenient, you should check out Launey Software's free MilkyWay 1.5.6 (★★★½; www.lny.mine.nu). When MilkyWay is running, clicking on an image in the Finder (JPEG, GIF, TIFF, PNG, PDF—any image format supported by QuickTime or Preview) brings up a small, floating window displaying that image.

Pop-up Photos MilkyWay lets you view an instant preview of an image file just by clicking on it.

If your mouse has a scroll wheel, you can change the size of the window by clicking on it and then scrolling. Clicking on another image in the Finder immediately changes MilkyWay's display to that image; clicking anywhere else in the Finder (to deselect the image) or switching to another application closes the window. (If you prefer, you can set MilkyWay to display images continuously.) MilkyWay is a great way to quickly view all those files you've received via e-mail, copied off Web sites, or downloaded from your digital camera.

If you move your mouse over MilkyWay's image window, a small toolbar appears offering several options: to close the window, to zoom to full-screen mode (double-clicking on the window also accomplishes this), to rotate the image, to create a thumbnail for its Finder icon, or to move the image file to the Trash. (Unfortunately, the buttons for these items don't have labels explaining what they do.) More options are hidden in the window's contextual menu: right- or control-click on the image preview, and you can set the image as your desktop picture or open it in its default application.

MilkyWay's preferences provide many ways to customize its behavior. Some of the most notable are transparency and size settings for the viewing window, a 3-D view that mimics iChat AV's conference appearance, and many ways to customize image display.

Along with the unlabeled buttons, another annoyance I should mention is that once MilkyWay is running, it pops up its viewing window whenever you click on an image or PDF file in the Finder, even if you don't necessarily want to preview that file at the time. For this reason, I've moved MilkyWay's viewing window to the corner of my screen so it's less intrusive. But even with this inconvenience—which is unavoidable due to the way the utility works—I suspect many people will love the ability to view an image quickly while browsing files in the Finder.

COMPUTER HEADSET

AHS302USB

A headset—a combination of headphones and a microphone—was once a tool specifically for receptionists, telemarketers, and online gamers, all of whom spent long hours conversing with people remotely, and all of whom needed their hands free to do other things.

But with the increasing popularity of voice over IP (VoIP) and Internet telephony, a headset is now also a convenient and comfortable way to talk to family, friends, and business associates. I've tried a number of headsets over the years, but none of them worked very well: they sounded bad on my end, sounded bad to people on the other end, or were too uncomfortable to actually wear. However, I've recently been using Altec Lansing's $40 AHS302usb headset (★★★½; www.alteclansing.com), and it works quite well. The soft leatherette earpads are comfortable and block out a bit of office noise, the adjustable boom lets you position the noise-canceling microphone for clear voice reception, and the 7.5-foot cable reaches behind even the biggest desk.

But what I really like about the headset are its USB connection and its inline controls. The first time you plug the USB adapter into your Mac, you choose the AHS302usb as the input and output device in the Sound preference pane—after that, OS X automatically switches over to the AHS302usb whenever you plug it in. (You can also remove the USB adapter and use the AHS302usb as an analog headset.)

The headset's inline controller is a great feature. You can clip it to your shirt, and it provides a rotary volume control along with a switch for controlling mute, low gain, or high gain for the unit's microphone. The switch is much more accessible—and, in my experience, more effective—than the input level setting in the Sound preference pane.

Although the headset's audio quality is great for voice, it's also decent for music and games—not as good as high-quality

continues

Can You Hear Me Now? The AHS302usb lets both sides of a conversation be heard.

headphones, but good enough for listening to iTunes between Skype calls.

The only issue I've had with the AHS302usb is that its behind-the-head headband can be a bit difficult to fit comfortably. Although I see many people wearing this style with the headband down around their necks, I find that positioning the headband horizontally behind my ears provides the best comfort.

Perhaps the biggest compliment I can give the AHS302usb is that during Skype conferences, I can hear everyone else clearly—and, more important, they say the same about me. You would think this would go without saying for a product that's designed specifically for such use, but having tried a number of other headsets, I can tell you it doesn't—especially at this price.

FILE-CREATION CONTEXTUAL-MENU ITEM

NuFile 1.7

One of the most common OS X feature requests I get—mainly from Windows users switching to the Mac—relates to creating new files. In Windows, if you right-click on a folder, one of the options in the resulting contextual menu lets you create a new document right there in that folder. This is a neat trick—when creating a new document, you often have a pretty good idea where you want to save it; in fact, that folder is usually open in the Finder, so why shouldn't you be able to create a new document just as you can a new folder?

Last year I wrote about Document Palette (★★★★½; *Mac Gems*, macworld.com/1208), a utility that lets you create a new document in the current Finder folder by pressing a keyboard shortcut and then choosing the desired document type. But I've recently discovered Piti Ongmongkolkul's NuFile 1.8 (★★★½; www.growlichat.com), which is sure to please many former Windows users (as well as many longtime Mac users). It nearly replicates the aforementioned Windows feature and does other things. NuFile gives the Finder's contextual menus a New File item; simply right-click (or control-click if you have a single-button mouse) on any Finder window—or on the desktop—and choose the type of file you want to create; a new file of that type then appears.

Like Document Palette, NuFile lets you customize the list of possible document types its menu item provides. NuFile's

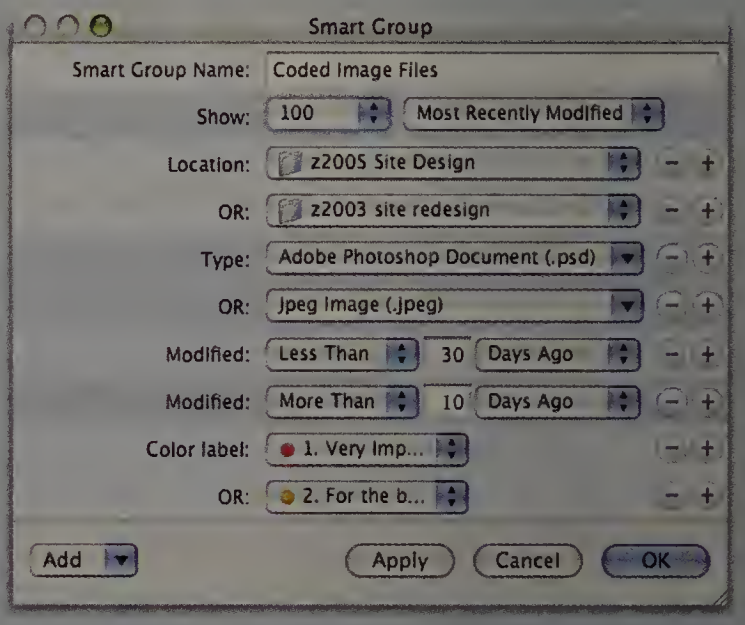
continues

SEARCH TOOL

MoRU 1.3

Many of us at *Macworld* have a love-hate relationship with Spotlight. More often than not, I find myself on the hate side, because Spotlight's user interface doesn't fulfill my searching needs. After reading Dan Frakes's review of DevonTechnologies' free EasyFind (★★★★½; *Mac Gems*, macworld.com/1209), I gave it a try and began using it somewhat regularly—but I still found myself wanting a bit more flexibility from a search interface. Ideally, I wanted a tool that would use the existing Spotlight index—after all, it's the interface to Spotlight that I find lacking, not the concept of indexing the data on my drive. For me, Windstorm Software's $10 MoRU 1.3 (★★★½; www.windstormsoftware.com) is the tool that finally delivers the promise of the Spotlight technology. And although it's not free, it's reasonably priced for the features it delivers.

MoRU works in conjunction with Spotlight but provides an efficient and well-organized design that lets you do much more than seems possible with the standard Spotlight interface. MoRU's approach is based on what it calls *smart groups*, which are basically saved Finder searches. You create a new smart group, specify the criteria for the search, and then save the group. From then on, you can access the search with a mouse click.



Star Search MoRU lets you easily submit complex search requests to Spotlight's database.

The power of MoRU, though, comes not from the Smart Groups themselves, but from the way you're able to construct the searches. Using a format similar to that of the Finder, you build your search criteria one entry at a time. Unlike the Finder, however, MoRU makes it quite easy to build complex queries with simple point-and-click operations, so you can find exactly what you're looking for.

Consider this simple but real example. I've written quite a few articles for *Macworld* over the last few years. In some of them, I know I've discussed the Unix command `du`, which reports on disk usage. Now I want to find those references for a new article I'm writing, but the articles are scattered all over the computer. To find them in Spotlight, I enter `du` as my search term—and I get 991 results, because Spotlight finds not only references to the `du` command, but also words starting with *du*. Clearly, this search was not very helpful. Now consider the same search done in MoRU. I tell MoRU to search for the text *du*, but I also select the Exact option. MoRU will find only occurrences of the exact word *du*, ignoring anything that simply starts with *du*. When I run this search, I get only nine matches, and all nine of them mention the `du` command.

Of course, that's an easy one, but where MoRU really shines is in its ability to create complex searches. For example, here's the query I'd like to build in Spotlight: find all the Photoshop (.psd) or JPEG (.jpg) images that are between 10 and 30 days old in either of my two site redesign folders, and find only those that are coded with either a Very Important or a For The Boss label. Such a search is technically possible with Spotlight. But to perform that kind of search in Spotlight itself, you'd need to have a very detailed level of knowledge about raw queries and the inner workings of Spotlight. I don't have the slightest clue how to build such a query. MoRU makes this kind of search relatively easy.

MoRU also avoids another major problem I have with Spotlight—it starts a search only after you've built the entire query, not as you're typing it in. Instead of seeing meaningless results come and go as you change the query, you see only results that match your full query.

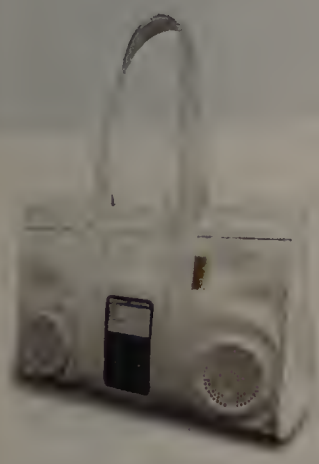
I also like the fact that the Type pop-up menu offers a ton of different options, unlike the limited selection available in the Finder's own search window. Types are displayed first by major groups, such as Text, Image, Audio, or Movie. A submenu for each group then shows the available file types; for Movie, for instance, you'll see 12 different movie formats, including AVI, MPG, MOV, WMV, and RM.

Not everyone needs MoRU, but if you need help finding the proverbial needle in the haystack, MoRU will definitely come in handy—it has already saved me a ton of time.—ROB GRIFFITHS

Yippee! My new iPod case didn't require financial aid!

The Signature Line from Case-Mate

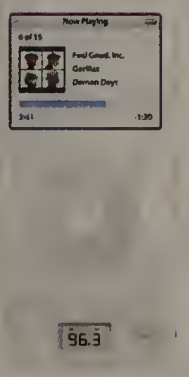
Made from super soft nappa leather, these form-fitting cases make a timeless statement of good taste for your iPod. Each case features protection for the screen and Click Wheel, a microfiber cleaning cloth, and a removable belt clip.



GrooveBags
from Felicidade
Carry your iPod in this stylish purse with built-in great-sounding amplified speakers. New Price.

Remote Docking Station
from Marware
Flip through music, videos or photos from the comfort of your sofa with the easy-to-use remote.

MOUMOUTE for iPod
from i-doll
Fashion furry luxurious chic case, featuring genuine leatherskin. For iPod video or nano.



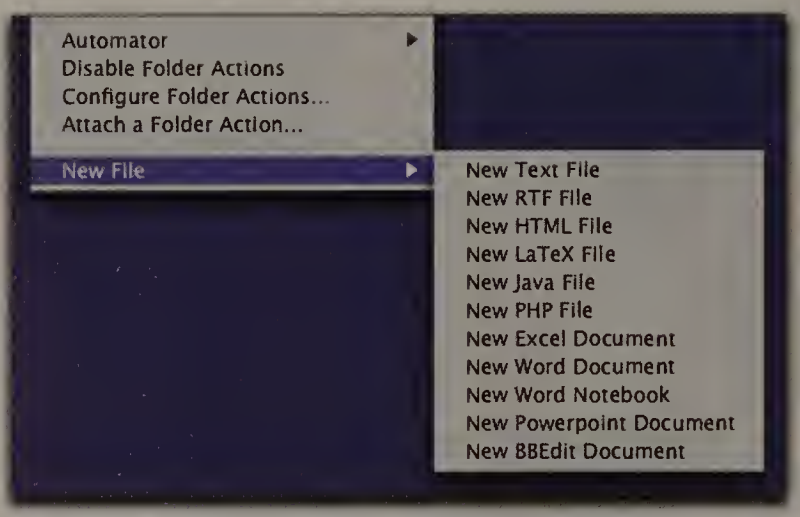
iTrip LCD
from Griffin
Make your own FM station with your music. Now compatible with all full sized dock connector iPods.

PhoneValet Message Center v4.0
from Parliant
A hardware and software solution that turns your Mac into a call center.

Buy Dr. Bott products at your friendly neighborhood iPod store.
Find one online at http://www.drbott.com/local phone: 800.541.1167

Dr. Bott LLC

preference pane lists the currently available file types, including a description of each, how its name appears in the NuFile menu, what the new file will be named (along with its extension), and the location of the template for that new file. You can remove file types from the menu (or just hide them so they don't appear), as well as add your own—for example, I've added a New BBEdit Document item. You can also change the order in which document types appear. (Unfortunately, unlike Document Palette, which consolidates your added document types and templates in a single folder inside *your user folder*/Library/Application Support, NuFile leaves them wherever they were when you added them to the NuFile menu. If you later move a document template, NuFile won't be able to find it.) NuFile also gives you the option to open newly created documents automatically.



Fast Files NuFile makes creating a new file in the Finder as easy as it is to create a folder.

Like Document Palette, NuFile lets you add any document you want to its menu item. For example, you may frequently use a particular document as a template, such as a partly completed invoice in Microsoft Word; choosing that document from NuFile's menu is the same as making a copy of it in the desired folder.

Despite NuFile's usefulness, I do have a few general complaints about the program. The developer's download and installation process is unimpressive. For starters, NuFile doesn't come with any documentation—the download includes only an installer package, without any indication of what it will install, or where (you can find limited documentation on the developer's Web site). It turns out that NuFile installs itself for all users on your Mac; you should have the option to install it in just your own account. Finally, installing NuFile automatically restarts the Finder without warning—and it doesn't do so gracefully, so you lose all your open Finder windows.

However, NuFile itself works quite well. It isn't as polished as Document Palette, but I suspect that many users will prefer NuFile's Windows-like contextual-menu access to Document Palette's keyboard-centric approach.

FILE COPY UTILITY

DropCopy 1.02

A year and a half ago, a new utility that simplified the task of copying files between Macs was in development. The official release of 10base-t Interactive's free DropCopy 1.02 (●●●●½; 10base-t.com) offers significant improvements, and it's now one of my favorite OS X utilities.

Although OS X's Bonjour technology makes it relatively easy to connect two local Macs for the purposes of sharing files, you still have to set up Personal File Sharing and then use the Connect To

THE CONQUEST

DiskWarrior is Now OS X Native

It's the indispensable utility that repairs problems such as disks that won't mount, files you can't trash, and folders that have disappeared. MacUser magazine said, "It's the fastest and safest data recovery utility you can buy."

Macworld magazine said, "DiskWarrior is by far the best disk utility available for the Mac; it can repair virtually any disk problem you may encounter...and it is likely to become the only tool you'll want to keep with you at all times."

David Coursey, ZDNet AnchorDesk, agrees in an article comparing disk utilities. He used it to fix a disk that no other utility could. "DiskWarrior is a great product, not just because it fixed a pretty serious screw-up, but because it showed me what it planned to do in minute detail before doing it."

But disk damage isn't the only threat to your data. As hard drives get older, the drive mechanisms

THE UTILITY COMPANY
ALSOFT
Phone: 1-800-257-6381 Fax: 281-353-9868 Email: sales.info@alsoft.com Web Site: www.alsoft.com
©2003 Alsoft, Inc. DiskWarrior is a registered trademark of Alsoft, Inc. Other product names are trademarks of their respective companies.

Server feature to connect one Mac to the other, providing your name and password when prompted. When all I need to do is get a Word document or a few photos from my desktop Mac to my PowerBook, that seems like a hassle. DropCopy simplifies the process by letting you quickly send files directly to other Macs—or to particular users on those Macs.

When active, DropCopy looks for other copies of the application (called destinations) running on your local network. (If you want to copy files to a computer running DropCopy that's not on your local network, you can add that computer as a permanent destination by providing its IP address.) If DropCopy finds any destinations, a small, translucent circle (which I call a "drop zone") appears on your desktop; you can move this drop zone to wherever you like. When you want to copy a file to another computer, simply drag the file into the drop zone and then onto the name of the preferred destination (either a computer name or a user name, depending on your preferences). The file will be copied to the other computer and will immediately appear wherever that computer's owner has decided incoming files should reside.

Drag, Drop, and Send DropCopy is the fastest way to send files between Macs on a network.

As files are copied, DropCopy's drop zone pulses and you see the completed percentage. (You can also set DropCopy's menu-bar icon to indicate copy progress.) When the file has finished copying, DropCopy notifies you via both text and audio.

That's all there is to it—no network browsing, no Connect To Server, no user names and passwords. The only hiccup is that if you've enabled OS X's firewall, you may need to configure the firewall so that it allows DropCopy traffic through; the company provides instructions for doing so.

If you're on a public network, DropCopy's Preferences dialog box allows you to disable the option to receive files automatically (so malicious users can't fill up your hard drive with huge unwanted files). You can also choose whether to display user names or computer names as targets in the drop zone, but you can't show both. This is a big problem: If you have two users running Drop Copy on the same machine, you'll want to show user names, but if you have multiple computers with the same user names, you won't know which computer you'll be sending files to. Similarly, if you show a computer name but multiple users are running DropCopy on that machine, to which user will the copy go? (At press time [too late for me to review], the developer released an updated version that addressed this problem.)

You must install DropCopy on each Mac you want to access. But if you frequently copy files between two or more computers, it takes only a few minutes to install DropCopy on them all and configure the program to launch at login. □

DAN FRAKES (www.danfrakes.com) is a *Macworld* senior editor. Send your thoughts on this column, or on things you'd like to see in future columns, to macgems@macworld.com.

CONTINUES

begin to malfunction. Eventually, the malfunctions become so severe that the drive simply stops working. DiskWarrior can automatically test for hardware malfunctions, giving you the chance to back up your data before it's too late.

Be prepared. Don't wait until after you have a disk disaster to buy your copy of DiskWarrior. Bob LeVitus, aka Dr. Mac, said, "I feel naked without DiskWarrior." You can believe MacHome magazine when they said, "DiskWarrior is a quick, one-click solution to faster, more stable hard drives."

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Macworld 1/2
Apple Design Award
winner macworld eDays
MACnificent
mactoday
Mac ADDICT RATED

Top Products

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SEE MORE HARDWARE REVIEWS!
Go to www.macworld.com/reviews.

COLOR LASER PRINTER

Magicolor 2430 DL ($499), from Konica Minolta (www.konicaminolta.com):

The Magicolor 2430 DL is a capable networked color laser printer whose setup needs a bit of finessing. The toner cartridges are preinstalled, but you need to remove some tape and clips that are hard to miss. However, the Magicolor 2430 DL has a low price, accurate and saturated color prints, and unique features such as PictBridge camera printing. It's a great buy for a home office, a small work group, or anyone who doesn't need PostScript support. Beware: this printer is noisy (macworld.com/0635).

INK-JET PHOTO PRINTER

Stylus Photo R340 ($200), from Epson (www.epson.com):

The Epson Stylus Photo R340 prints the best color photos in its class, and it reproduced shadow detail extremely well. It's a great choice for printing brilliant color photos, with or without the help of your computer. Also, this printer's ability to print to CDs and DVDs extends its usefulness, and its individual ink tanks and nice big LCD certainly sweeten the deal. There is a downside, though: its black-and-white prints are subpar (macworld.com/0948).

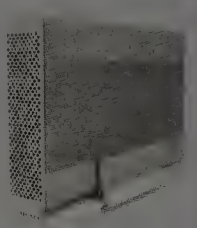
FIREWIRE DRIVES

DESKTOP DRIVE

Black Series Triple Interface, 250GB ($240), from Iomega (www.iomega.com):

You can't go wrong with its speed, connection options, and low price per gigabyte. It can boot OS X via FireWire and includes Retrospect Express (macworld.com/0580).

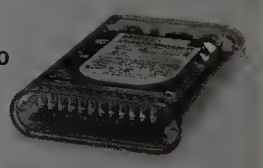
ALSO RECOMMENDED:



Mercury Elite-AL Pro 7,200 rpm FireWire 800/400 + USB2, 250GB ($230), from OWC (www.macsales.com):

This speedy drive can boot OS X via FireWire and includes Retrospect Express. It also has multiple connection options (macworld.com/0580).

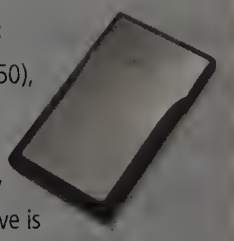
PORTABLE DRIVE



Mercury On-the-Go 7,200 rpm 8MB, 60GB ($250), from OWC (www.macsales.com):

Loaded with useful utilities, this little drive has good connection options and an eye-catching design. It's also fast; it can boot OS X via FireWire and is powered by the FireWire bus. It includes Retrospect Express, other utilities, and a carrying case (macworld.com/0580).

ALSO RECOMMENDED:



ComboGB, 60GB ($250), from WiebeTech (www.wiebetech.com):

Though it comes at a relatively high cost per gigabyte, this drive is fast and has many connection options. It can boot OS X via FireWire and is powered by the FireWire bus (macworld.com/0580).

MiniMax 250GB ($250), from Iomega (www.iomega.com):

If you own a Mac mini, you should check out the MiniMax. It fits neatly under the mini, and its integrated USB and FireWire hub makes it a great companion to the littlest Mac (macworld.com/1159).

MACS

DESKTOP

Product	Processor	Display	Rating	More Information	Best Price[A]	Speedmark 4.5 Score[B]
iMac	Intel Core Duo/ 1.83GHz	17 inches	●●●●	macworld.com/1153	$1,099	202
	Intel Core Duo/ 2GHz	20 inches	●●●●	macworld.com/1154	$1,449	214
Mac mini	Intel Core Solo/ 1.5GHz	not included	●●●●	macworld.com/0909	$589	123
	Intel Core Duo/ 1.66GHz	not included	●●●●	macworld.com/0911	$780	144
Power Mac	G5/dual-core 2GHz	not included	●●●●	macworld.com/0942	$1,699	227
	G5/dual-core 2.3GHz	not included	●●●●	macworld.com/0945	$2,149	254
	G5/quad-core 2.5GHz	not included	●●●●	macworld.com/1089	$2,799	272

PORTABLE

iBook	G4/1.33GHz	12 inches	●●●●	macworld.com/0705	$930	101
	G4/1.42GHz	14 inches	●●●	macworld.com/0706	$1,219	109
PowerBook	G4/1.5GHz	12 inches	●●●●	macworld.com/0399	$1,393	not tested
	G4/1.67GHz	17 inches	●●●●	macworld.com/0947	$1,906	134
MacBook Pro	Intel Core Duo/ 1.83GHz	15 inches	●●●●	macworld.com/0912	$1,999	152
	Intel Core Duo/ 2GHz	15 inches	●●●●	macworld.com/0910	$2,499	161

[A] From a PriceGrabber survey of retailers as of April 12, 2006. [B] Speedmark 4.5 is Macworld Lab's standard test tool for benchmarking systems running Mac OS X 10.4 (Tiger). For information on Speedmark testing, go to www.macworld.com/speedmark.

INK-JET PRINTER

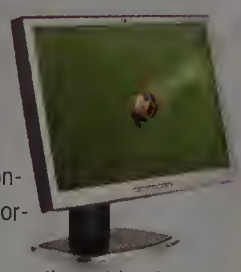
Pixma iP4200 ($130), from Canon (www.canon.com):

The Pixma iP4200, though it's a little bit slow at high resolutions, is a great all-around ink-jet printer. It can automatically print on both sides of a page, and it excels at printing Microsoft Office documents on plain paper, as well as printing high-quality, long-lasting photos on Canon's photo papers (macworld.com/0837).

LCD MONITORS

23-INCH DISPLAY

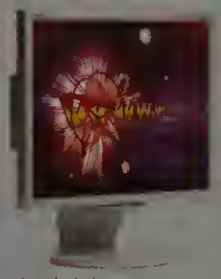
L2335 ($1,599), from Hewlett-Packard (www.hp.com):



Along with its outstanding value, analog and digital connectors, ability to pivot to portrait mode, and adjustable height, the L2335 provides excellent video-in options and very good color fidelity and viewing angle (March 2005; macworld.com/0278).

20-INCH DISPLAY

MultiSync LCD2070NX ($799), from NEC (www.necdisplay.com):



The MultiSync LCD2070NX is great for people who want a moderately priced 20-inch monitor that can display bright, accurate colors. It sports digital and analog inputs, an integrated USB 2.0 hub, and a thin bezel (macworld.com/0636).

17-INCH DISPLAY

SDM-HS75P ($450), from Sony (www.sony.com):

Although it's short on bells and whistles—this display doesn't have built-in USB, speakers, or the ability to pivot—the HS75P is a good choice for people with limited desk space who are looking for a bright and shiny, well-designed display. It has very good color fidelity and text quality (macworld.com/0637).

DIGITAL CAMERAS

DIGITAL SLR CAMERA

EOS Digital Rebel XT ($899; with lens, $999), from Canon (www.canon.com):

Canon defined this market with the original Digital Rebel, and the company keeps its lead with the EOS Digital Rebel XT. The camera's feature set, image quality, and price, combined with the vast assortment of available Canon mount lenses, make it the best choice in the sub-$1,000 digital-SLR market (macworld.com/0535).

ADVANCED DIGITAL CAMERA

PowerShot G6 ($699), from Canon (www.canon.com):

This is a compact and powerful 7.1-megapixel digital camera that should appeal to advanced photographers. It captured very sharp pictures with little noise, and its remote lets you release the shutter, control the zoom, and operate menus (macworld.com/0917).

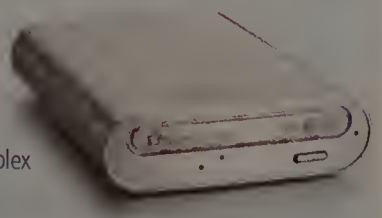
ALSO RECOMMENDED:

Lumix DMC-FZ30K ($700), from Panasonic (www.panasonic.com):

This 8-megapixel camera is well suited to photographers who want manual controls. Its images look great when taken in good light, but noise is a problem at higher ISOs (macworld.com/1157).

DUAL-LAYER DVD BURNER

PX-716UF DVD±R/RW ($239), from Plextor (www.plextor.com):



The PX-716UF DVD±R/RW drive features flexible connectivity options; it burns 2.4×-rated dual-layer media at 4×; it has fast 16× burn speeds; and it has the fastest read speeds of the drives we've tested (April 2005; macworld.com/0313).

Top Products are those we've recently reviewed in a comparison of like products. As new products become available, we will update the list. For longer reviews of these products and for other product recommendations, go to macworld.com/reviews. All prices are as rated. For the best current prices, go to macworld.pricegrabber.com. All products were available as of April 1, 2006.

IN THE LAB

Hardware Products We Tested This Month

FOUR-COLOR INK-JET PRINTER

Officejet Pro K550 ($199), from Hewlett-Packard (www.hp.com):

The Officejet Pro K550 is a four-color ink-jet printer aimed at small offices and other venues that require a medium volume of color printing. It costs more than most four-color, general-purpose ink-jets, but it can hold more paper, and its higher-capacity cartridges can print more pages than those of most general-purpose ink-jets, so this printer requires less maintenance from users. It's fast and it does a respectable job on photos, as well as on charts and graphs (macworld.com/1257).

17-INCH DISPLAY

EN7450 ($280), from Envision (www.envisiondisplay.com):

The Envision EN7450 is a 17-inch LCD with both analog and digital inputs. Its silver base and white bezel make it an attractive companion for the Mac mini, and if you happen to own a G4-powered mini, you'll be interested in the display's integrated USB hub and speakers, and its low price. But because of its relatively narrow viewing angle, tinny audio, and slightly fuzzy text, the EN7450 may be better in concept than on your desk (macworld.com/1258).

17-INCH DISPLAY

UltraSharp 1707FP ($279), from Dell (www.dell.com):

Budget-conscious display shoppers won't be disappointed by this highly flexible 17-inch monitor. With its built-in USB hub and very good text and color performance, you'll be staying too close to the screen to notice the limited viewing angle (macworld.com/1259).

COLOR LASER PRINTER

C5800Ldn ($799), from Oki Data (www.okidata.com):

The new Oki Data C5800Ldn offers fast print speeds, nearly ink-jet–quality photos, extensive color controls, built-in Ethernet connectivity, and automatic duplexing. It produces great-looking photos and black text. But colored text and fine lines weren't as clean as on other laser printers (macworld.com/1260).

Hotter Stuff

47 Gadgets, Apps, and Web Sites You Need to Check Out Now

Macworld editors can be a jaded bunch. We've been looking at Mac hardware and software for so long, we sometimes feel as though we've seen it all before. But then, every once in a while, something new comes along—a desktop gadget, a way to keep a laptop safe, or an oddball USB device, for instance—that makes us stop and say "Wow." (Although it's not always "Wow, that's great." Sometimes it's "Wow, what were they thinking?")

Every month, we collect a few of our favorite new things in our *Hot Stuff* section on the magazine's back page. But sometimes we have more than a few new things to tell you about. So this month we decided to let *Hot Stuff* stretch its legs a bit. You'll still find it on the back page, but it also gets a little extra room in the pages that follow. That's where you'll find a bunch of the hottest—and a few of the wackiest—gadgets, programs, and Web sites we've seen or heard about lately. We hope that more than a few of them make you stop and say "Wow," too.

By the Editors of Macworld

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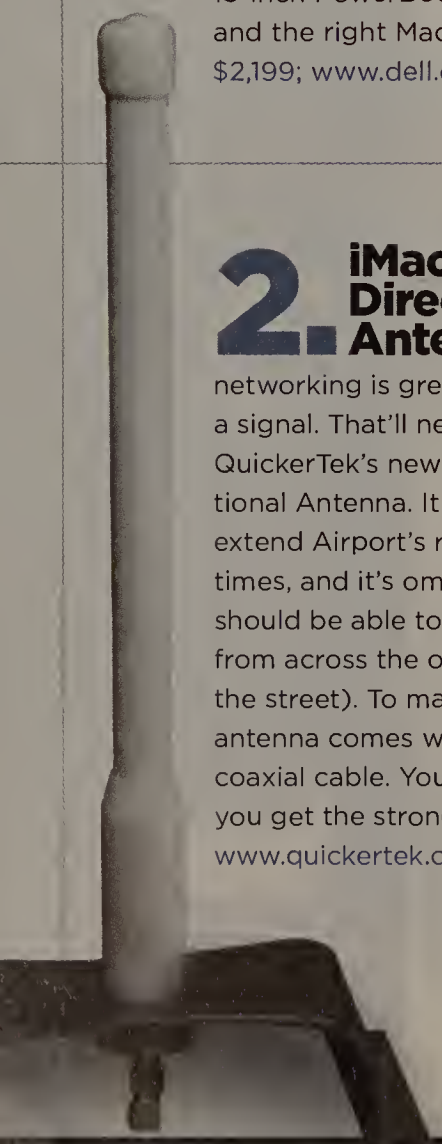
6 Ways to Keep Up with the Joneses

BY DAN MILLER

1. Dell 3007WFP At $2,199, Dell's new 30-inch 3007WFP isn't exactly cheap, but it's worth a look if you're in the market for a superhuge display and want an alternative to Apple's $2,500 30-inch Cinema HD Display. You'll need a dual- or quad-core Power Mac with PCI Express, one of the current 17-inch PowerBooks, or one of the new MacBook Pros to run the thing. (The requisite graphics card was also a build-to-order option on the last 15-inch PowerBook.) But if you've got the money and the right Mac, this is one sweet display. $2,199; www.dell.com



2. iMac G5 Omni Directional Antenna Wireless networking is great until you can't get a signal. That'll never happen with QuickerTek's new iMac G5 Omni Directional Antenna. It can theoretically extend Airport's range up to three times, and it's omnidirectional, so you should be able to pull in networks from across the office (or even across the street). To maximize its reach, the antenna comes with a three-foot-long coaxial cable. You mount it wherever you get the strongest signal. $100; www.quickertek.com

3. SoundBridge Radio You probably know about Roku's SoundBridge network music player, which lets you stream iTunes music (the unprotected kind, at least) from your Mac to your stereo or speakers around the house. The SoundBridge Radio does much the same thing, except that it plays your iTunes music over its own built-in speakers, and it can play AM, FM, and Internet radio streams. It's got an alarm clock, too. $400; www.rokulabs.com

DELL PHOTOGRAPH BY PETER BELANGER

4. Digital Picture Frame

Digital picture frames are nothing special these days—but the PhotoVu Digital Picture Frame does something different. It lets you download and display pictures from iPhoto photocasts, as well as photo streams from Flickr, Smugmug, and MSN. It's available in two 19-inch models. Both display pictures at 1,280-by-960-pixel resolution, but the higher-priced PV1955 sports higher contrast and better brightness than the PV1945. PV1945, $850; PV1955, $1,200; www.photovu.com

5. Petito Flash Drive

The Petito Flash Drive is (according to ATP Electronics) the "world's smallest flash drive." How small? About the size of a quarter. Yet it holds as much as 1GB of data, can transfer it via USB 2.0, and can be protected with a password. But c'mon, you don't buy one of these things for the specs. $25 and up; flash.atpinc.com

6. Chandler

iCal? Address Book? Forget 'em. Well, don't forget 'em just yet, but do keep an eye on Chandler. At version 0.6, it's a minimally usable calendar app right now. But it promises to grow into a comprehensive information manager that will handle e-mail, calendars, to-do lists, notes, and more; let you share that information in all sorts of ways; and put a friendly Mac OS X face on top of it all. You don't have to use it. Just name-drop it once in a while. free (for now); chandler.osafoundation.org

6 Products for the Paranoid

BY DAN MILLER

1 Laptop Locker

When you think of laptop theft, you probably think of airports and cabs—but what about right off your desk? If you ever leave your portable Mac unattended at work, during the day or overnight, anyone could walk by and snatch it. If you really crave protection, check out SecureIt's desktop Laptop Locker. It's a sturdy metal box that you can permanently affix to your desk, with a lockable door and a hole for whatever security cables you might want to add. Laptop Locker, $220; www.secureit-usa.com

2 Undercover

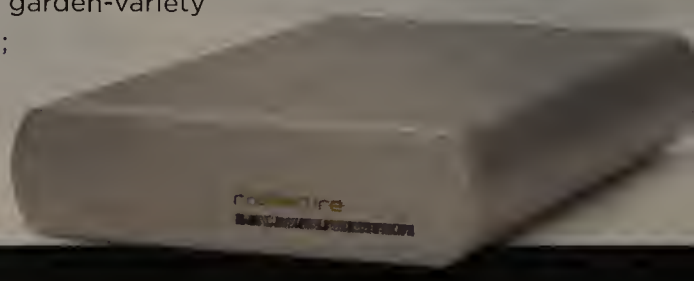
If your credit card gets stolen, police can track it down by finding out where the thieves use it. Orbicule's Undercover 1.5 does the same thing for laptops. When you install the app, it registers a unique ID for your Mac on a server and checks in periodically. If your machine is stolen, the system transmits its Internet location; Orbicule will then cooperate with law enforcement officials to locate the system physically and recover it. The latest version even adds support for iSight cameras, so your Mac can snap a mug shot of the miscreants. $30; orbicule.com

3 SiteAdvisor

Even experienced Web surfers can sometimes land on sites they shouldn't visit. Whether a site tries to install spyware or just harvests your e-mail address for future spam campaigns, it's hard to tell before the damage is done. SiteAdvisor, an add-on for Mozilla Firefox and Microsoft Internet Explorer (a Safari version is reportedly in the works), tries to fix that by telling you how risky sites are *before* you click on their links. To find out which sites you should avoid, SiteAdvisor deploys a spider that crawls the Web, looking for suspicious behavior. It then inserts site ratings into every page you view, using a three-color scale (a green icon next to a link means the site's OK, yellow means it might be iffy, red says stay away). free (for now); www.siteadvisor.com

4 Rocbit

Available in USB or USB-and-FireWire configurations, with capacities ranging from 40GB to 500GB, Rocstore's Rocbit external drives aren't your garden-variety mobile storage devices. They'll encrypt your data using real-time hardware encryption (way faster than software encryption), at 40-, 128-, or 192-bit strength, so *nobody* can read your stuff. In case you're worried about physical threats, they also come with antishock protection, so you can drop the things and not miss a bit. These aren't your garden-variety external drives. $160 and up; www.rocsecure.com



5 Profile 12/15

Brenthaven is known for the sturdiness of its bags. But there's sturdy, and then there's *really* sturdy. Brenthaven's Premium Core bags—including the Profile 12/15, for 12- and 15-inch laptops—are padded on six sides with foam up to two inches thick, and feature reinforced corners, a reinforced bottom, and a rigid wall that protects your laptop's screen. $130; www.brenthaven.com

6 Memory Card Travel Case

These days, we're swimming in memory cards. CF I/II, MD, SM, MMC, SD, miniSD, MS, MS Duo, and xD card—it's a wonder we can figure out which cards go with which gadgets, much less what all those acronyms mean. And they're all so darned small and easy to lose! The Digital Foci Memory Card Travel Case at least gives you a safe, sturdy place to put them. It'll hold eight cards at a time, of almost any shape or size, and protect them inside a hard aluminum frame. $20; www.digitalfoci.com

LAPTOP LOCKER, PROFILE 12/15, AND MEMORY CARD CASE PHOTOGRAPHS BY PETER BELANGER

4 Reasons to Trade In Your Old Camera

BY KELLY TURNER

1. Nikon Coolpix S6 The Coolpix S6 is great for showing off your latest photos when you're nowhere near a big screen. The camera is ultracompact, yet its big (three-inch) LCD screen with a wide viewing angle lets everyone have a look. You can even set up an in-camera slide show, complete with music (you supply the WAV files). $450; www.nikonusa.com

2. Canon PowerShot S80 The 8-megapixel PowerShot S80 is small (about 4 by 2 by 1.5 inches) and light (about 8 ounces). But its 28mm-to-100mm lens is wider than what you find on most compact point-and-shoots, letting you capture more of the picture. $500; consumer.usa.canon.com

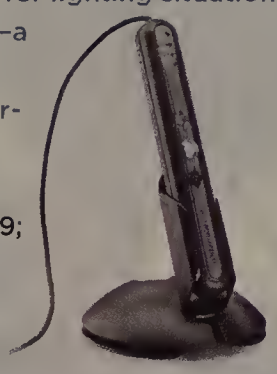
4. Olympus Evolt E-330 You'd like to upgrade to a digital SLR, but you don't want to lose the screen preview you get with your compact camera. The Evolt E-330 is the first digital SLR camera to offer a live preview. The 2.5-inch LCD screen also tilts to help you compose shots from awkward angles. $1,000; www.olympusamerica.com

3. Panasonic Lumix DMC-FZ7S For people who want to feel close to the action, even from the stands, the 6-megapixel DMC-FZ7S sports a 12× optical zoom. It also comes with an optical image stabilizer—especially handy when you're shooting those really long-distance shots. $400; www2.panasonic.com

4 Things to Throw into Your Camera Bag

1. Joby Gorillapod This flexible, compact, lightweight tripod can adjust to nearly any surface. $22; www.gorillapod.com

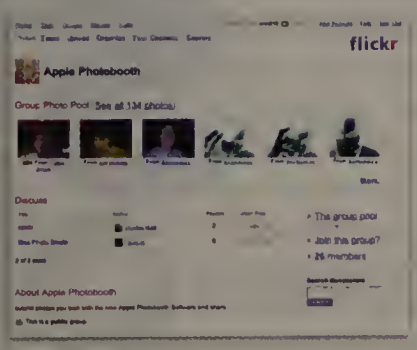
2. Pantone Huey This compact, inexpensive monitor calibrator adjusts your screen for whatever lighting situation you're in—a café, an airport terminal, or a home office. $89; www.pantone.com



3. Lowepro Slider Case A camera case specifically designed for sleek compacts, the Lowepro comes in three sizes (the 10, 20, and 30) and three colors (black, red, and blue); each has a detachable belt clip. $20 to $25; www.lowepro.com

4. Popabrella OK, it looks supergoofy, but it could come in handy: it's an umbrella for your camera. Position it at an angle to protect the camera from rain or to shade the lens from the sun. $20; www.popabrella.com

5 Best Flickr Groups for Mac Users



1. Apple PhotoBooth
www.flickr.com/groups/applephotobooth/

2. Mac PhotoBooth
www.flickr.com/groups/macphotobooth/

3. Cats Love Macs
www.flickr.com/groups/catslovemacs/

4. The Album Art Game
www.flickr.com/groups/85557874@N00/

5. Macintosh
www.flickr.com/groups/macintosh/

COOLPIX S6, GORILLAPOD, HUEY SLIDER CASE, AND POPABRELLA PHOTOGRAPHS BY PETER BELANGER

iSkin®
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5 Alternatives to the iPod Hi-Fi

BY DAN FRAKES AND JONATHAN SEFF

1 Scandya Dock OK, so it's not a speaker system. But if you have a set of high-end bookshelf speakers, Scandyna's The Dock lets you connect your iPod directly to them. It's a 30-watt, Class T amplifier *inside* a stylish (white or black), circular Universal Dock only 5 inches across and 1.5 inches high. You also get a remote control and a subwoofer output. $350; www.podspeakers.com

2 ZVox Mini ZVox Audio's ZVox Mini is similar in concept to Apple's iPod Hi-Fi, but it's about half the size, it's more rugged, and it offers surprisingly good sound for a one-piece speaker system. You'll need to add your own dock and iPod remote, but you'll be impressed by the expansive 3-D soundstage. Add the battery and carrying bag, and the Mini is even more portable than the Hi-Fi. $200; with battery and bag, $300; www.zvoxaudio.com

3 Audioengine 5 For the same price as an iPod Hi-Fi, Audioengine's amplified bookshelf speakers provide impressive bass response and excellent stereo separation. They even include USB and audio ports for your iPod. And the AC outlet on the back lets you hook up an AirPort Express for remote iTunes playback. $349; www.audioengineusa.com

4 inMotion iM9 The latest in Altec Lansing's seemingly endless supply of inMotion portable speaker systems, the iM9 stands out by offering great sound in a tiny (10.9 by 7.6 by 2.8 inches) system. With the cassette-deck–like dock of Altec Lansing's iM7 in a solid package powered by C cell batteries, the iM9 is also one of the toughest portable speaker systems out there. $200; www.alteclansing.com

5 Sonic Impact i-Pax The i-Pax is a set of iPod shuffle speakers inside a sturdy, ballistic-nylon, hard-shell case that zips closed for travel. Plug your shuffle into the i-Pax's USB dock, and your iPod becomes part of the i-Pax, with only the shuffle's control pad protruding from the smooth white surface. The battery-powered speaker system even includes room to store your shuffle and earbuds during travel. $80; www.si-technologies.com

DOCK, ZVOX, IM9, IPAX, AND TUNEBUCKLE PHOTOGRAPHS BY PETER BELANGER

4 Fun iPod Add-Ons

1. The $50 **TuneBuckle for iPod nano** (www.tunebuckle.com) turns your player into a belt buckle with accessible controls and a visible screen; it even has a hole for your headphone plug.

2. Lumi Ventures' $25 **Lumi Flasher** (www.lumi-ventures.com) connects to the Dock port and provides an LED flashlight or one of six blink modes (in red and white), including a mode that flashes in time to your iPod's music.

3. If you're tired of boring skin cases, the $26 cases in Podstar's **Diablo line** (www.thepodstar.com) are truly devilish: each black or red case has various identifying marks, including horns and a tail.

4. Ready to take a break from your iPod mini's color scheme? DLO's $18 **mini flings** (www.dlo.com) come in a number of metallic shades and textures, and include a cosmetic mirror, an elastic lipstick band, and a matching wrist strap.

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Tobi Saulnier | PhD Rensselaer Polytechnic Institute | CEO, 1st Playable Productions, Troy, New York | 3-year SIGGRAPH attendee

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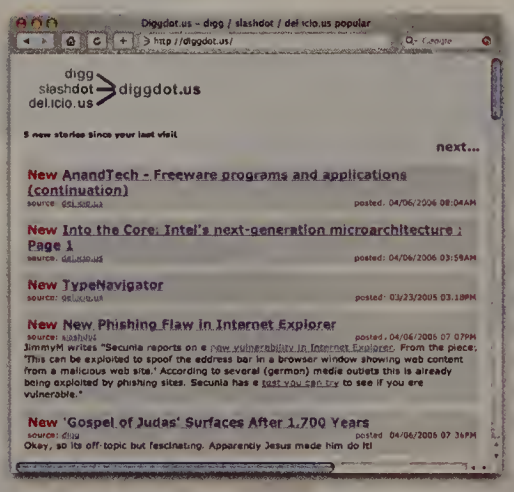
7 Ways to Let Your Geek Flag Fly

BY CYRUS FARIVAR

1 Kyocera KR-1 Get Kyocera's KR-1 router, and you can hit the Net wirelessly (at speeds as fast as 2.4 megabits per second), from nearly anywhere you can receive a cell-phone signal. $250; www.kyocera-wireless.com

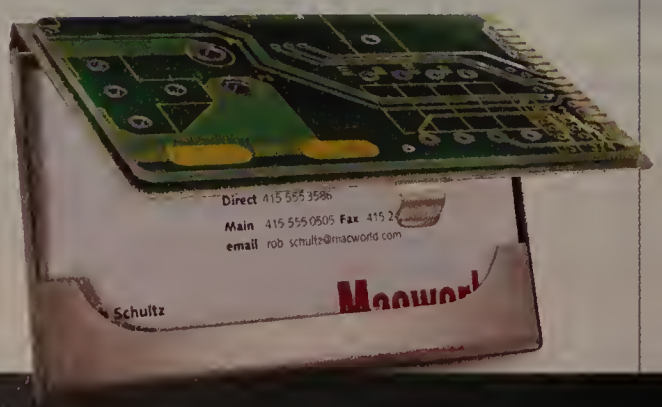
2 Diggdot.us It's a mash-up of Slashdot, Digg, and del.icio.us, and it's a great new source for all kinds of geek news. free, diggdot.us



3 Valleywag Want to know who's in and who's out at Google? What's the next hot start-up? Who are the cutest guys and girls in the Valley? This new gossip site tells all. free; www.valleywag.com

4 Geek Love-Poem Shirt Do geeks have feelings? They certainly will in this stylin' black T-shirt, with a love poem only coders will grok. $15; www.thinkgeek.com

5 Circuitboard Business Card Holder Yes, sometimes you still have to hand out old-fashioned, paper-based business cards. And when you do, make sure you whip them out of this little case with a stylish circuit-board exterior. $23; www.thinkgeek.com



6 Cinnamon Caffeine Mints You've been up for days, hammering on the keyboard. You're tired and your breath reeks, but you don't have time to sleep or brush your teeth. What to do? Pop a couple of these supercharged breath mints, and you'll be good for another all-nighter. $15 (six pack); www.peppermints.com

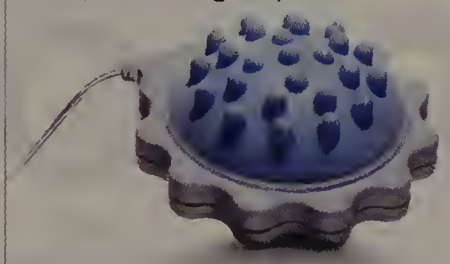
7 Skype Surely you're not using the plain old telephone system to place your calls anymore? Naturally you're hep to all the advantages of Internet calling—lower costs, integration with your Mac, general geek cred? If not, it's time to jump on the bandwagon. Skype is the heavy favorite in digerati circles. prices vary; www.skype.com

SHIRT, BUSINESS CARD HOLDER, MINTS: AVA LAMP MASSAGE BALL, WRISTBAND, AND BARENAKED PHOTOGRAPHS BY PETER BELANGER

6 Silly Things You Can Plug Into a USB Port

1. Mini Lava Lamp
$10; www.lavaworld.com

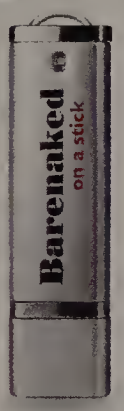
2. Massage Ball
$8; www.tangshop.com



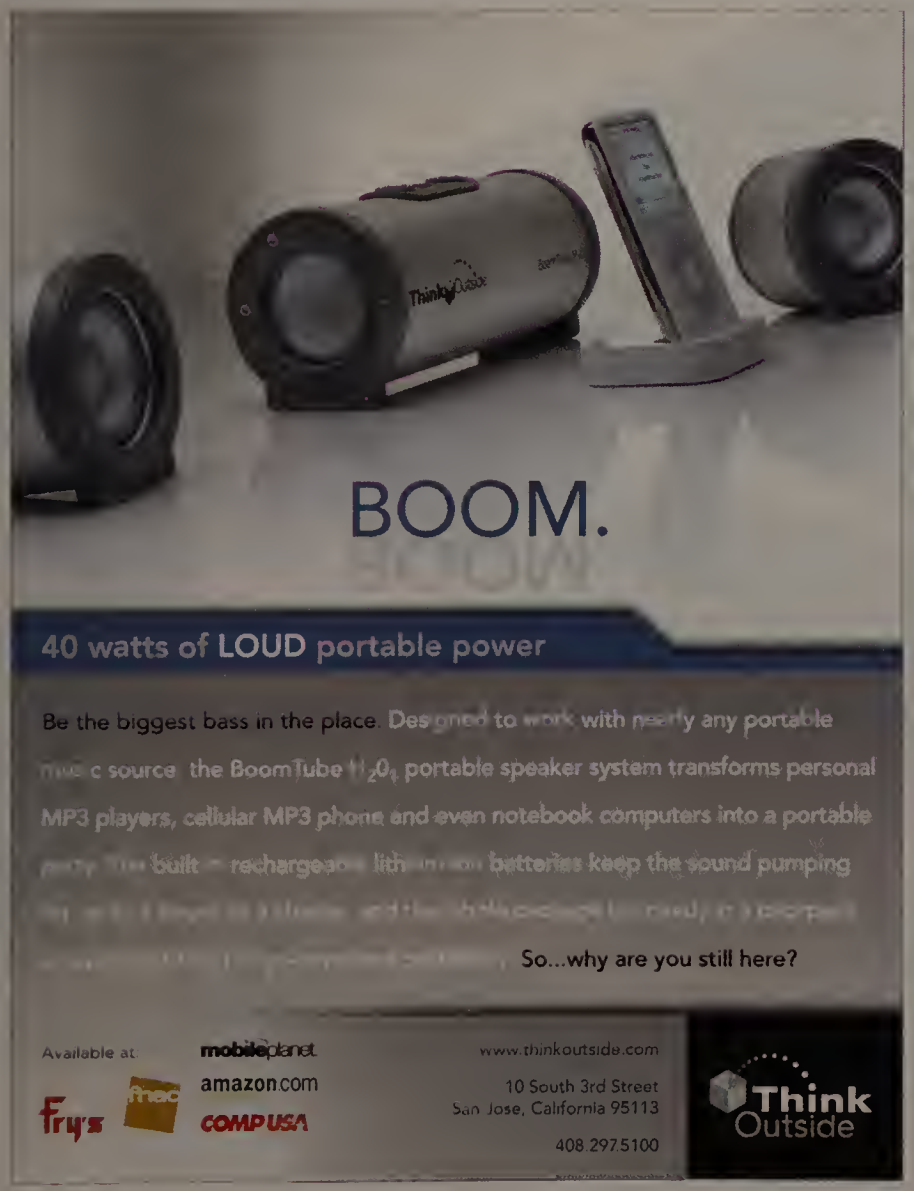
3. Sushi Flash Drives
$99; dynamism.com

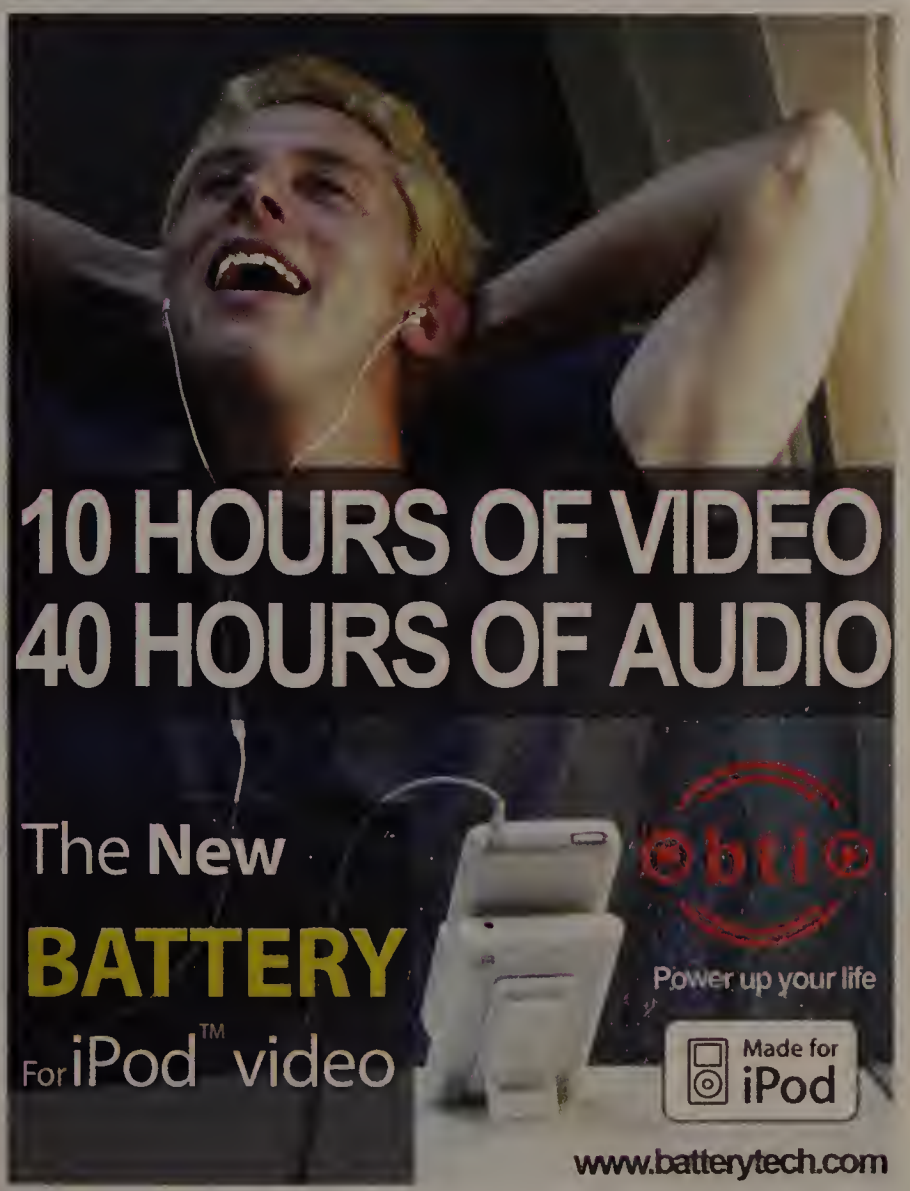
4. Wristband $35;
www.imation.com

5. Barenaked Ladies on a Stick $30;
www.bnlmusic.com



6. Hello Kitty USB 2.0 Flash Drive 256MB $68, www.dream kitty.com





NEW LIFE FOR OLD PHOTOS

For decades, you faithfully recorded your most precious moments on film, picked a few snapshots from the bunch for photo albums, and then carefully stored the rest. But now those prints are fading. If they're stored in non-archival albums or—heaven forbid—in the attic or garage, they may be aging even faster.

You can save them. By scanning old photos and film into your Mac now, you'll be able to stop the aging process and preserve irreplaceable photos. With the help of image-editing software, you may even be able to reverse some of the worst damage.

Once your photos are digitized, you can search your collection with a few mouse clicks; share your photos with others; and even use your favorites to create calendars, books, slide shows, and more.

Although scanning decades' worth of old photos isn't a quick process, it doesn't have to become a second job. With the right tools and an efficient workflow, you can safely scan, catalog, and annotate your old photos, negatives, and slides in your spare time.

HOW TO RESCUE, RESTORE, AND REUSE AGING PRINTS AND NEGATIVES

By Derrick Story

PHOTOGRAPHY BY PETER BELANGER

What You'll Need

If you've already made the switch to digital photography, you probably own many of the tools you'll need for this project.

Scanner If you have the time and the patience, the best way to digitize your prints, negatives, and slides is to scan them yourself. In recent years, the quality and affordability of consumer scanners have improved—making them well suited to this type of project. (For advice on buying a scanner, see "Selecting a Scanner.")

By scanning your old photos yourself, you'll have maximum control over the handling of your prints—some of which may be very fragile—and over the quality of your scans. The downside is that scanning can be a labor-intensive process. However, once you have your system set up, you can work on the project while you answer e-mail and handle other mundane computer chores.

Of course, if you don't have the time or the patience to take on the task of scanning, you can pay someone to do the work for you (see "Scanner for Hire").

Photo-Management Software Once your old photos have been scanned, you'll need a way to organize the new files. Apple's iPhoto software ($79 as part of iLife '06; www.apple.com) is a great choice because it's powerful and affordable. However, any photo-management software that helps you group photos, add keywords, and make backups will do the trick.

Image-Editing Software If your prints and negatives have been well preserved (ideally in archival albums or sleeves, and in a temperate climate), your scans may not need much touch-up work beyond the occasional exposure adjustment or the removal of a few dust spots. In these cases, iPhoto's image-editing tools should suffice. Pictures that have faded because of exposure to light and air or that have been damaged by careless handling and storage will require a bit more help. In these cases, you'll need a full-fledged image editor such as Adobe Photoshop CS2 or Photoshop Elements ($649 and $80, respectively; www.adobe.com). These programs offer powerful image-correction tools, layer controls, and masking features that give you precise control over specific areas of your photos. Plus, both programs support a variety of specialty plug-ins that can help you restore natural colors and even reduce grain.

Storage Space Creating high-quality scans doesn't just take time; it also requires considerable hard-disk space. For example, 100 4-by-6-inch prints scanned at 300 dpi (dots per inch)—the lowest resolution I recommend—take up more than 600MB of space. If you're digitizing a lot of images, I recommend investing in an external hard drive with a FireWire or USB 2.0 connection. If you're on a tight budget, then using DVDs is a reasonable—although certainly more cumbersome—alternative.

Step 1: Set Up Your Scanner

Set up your scanner, and load the driver software. If you have an older scanner, check the manufacturer's Web site to see whether there's an updated version of the driver. If no driver is available, you can try third-party software such as Hamrick Software's VueScan ($50; www.hamrick.com), which adds support and scanning controls for more than 400 scanners.

SCANNER FOR HIRE

If you don't have time to scan your entire photo collection yourself, you'll have no trouble finding someone happy to do the job. Companies such as DigMyPics (www.digmypics.com) will accept your bundled-up prints and slides, scan them, perform basic image correction, and then send you the originals along with the digital files on CD or DVD. DigMyPics even uploads proofs of your scans to its Web site so you can spot a problem and have it corrected before delivery. But the service isn't inexpensive. You'll spend 39 cents for each print (at 300 dpi; higher resolutions are available for an additional fee) and 59 cents for each frame of a 35mm negative or each 35mm slide (at 2,000 dpi). The company does offer discounts for orders of 500 or more. (If you're not sure how much resolution you need, see "Counting Pixels.")

Not all scanning services are created equal. Be sure to read the fine print on a company's Web site, so you know exactly what services are included with the price of a scan. And before sending any scanning service all of your precious memories, perform a trial run. Send the service a few slides or prints you have duplicates of, and see how it performs. Are the scans high quality? Were your materials returned in good shape? Are customer-service representatives available to handle your questions and problems? Once you're satisfied that a scanning service is reliable, you can begin to send batches of your pictures for archiving.

TIP

STICK WITH THE ORIGINAL

Many of us have negatives and prints of the same photos. In most cases, you'll get the best results by scanning the negative. Prints are second-generation interpretations of your negatives. Often those prints have been made in one-hour photo shops, and they're probably not of the highest quality. Plus, negatives tend to degrade more slowly than prints, so they are likely to be in better shape.

However, if you made your own prints in a darkroom and the prints are still in good shape, you may want to scan these instead of the negatives—especially if you've manipulated the image with dodging and burning. You don't want to lose all of your hard work by reverting to the original negative.

SELECTING A SCANNER

Before purchasing a scanner, take stock of the types of media you'll need to digitize. Do you primarily have negatives or prints? Are all of your negatives 35mm, or do you have wide-format negatives as well? These factors will have an impact on the type of scanner you use.

For this type of project, there are two main categories of scanners: flatbed and film scanners.

Flatbed Scanners

If you'll be scanning a variety of media, the best choice will be a flatbed scanner. Though they're designed primarily for scanning prints and other hard copy, many flatbed scanners include adapters for scanning different film formats.

Although you can pick up a basic scanner for as little as $50, we don't recommend doing so. We've found that many of these inexpensive scanners use inferior optics. For archival projects such as this, you'll want to get the best information possible out of your scans. We recommend spending at least $150 for a good scanner.

Resolution and bit depth were once top considerations of people shopping for scanners. But thanks to improvements in scanning technology, these specifications aren't as much of an issue nowadays. Unless you need museum-quality reproductions, almost all of the scanners on the market today are more than adequate for archiving 4-by-6-, 5-by-7-, and 8-by-10-inch prints. That said, there are a few features that may improve your scanning experience:

Connectivity Most scanners currently on the market connect to the Mac via USB 2.0. This should be adequate for most scanning tasks. If your Mac doesn't support USB 2.0, consider buying an inexpensive upgrade card, as scans can take twice as long at the slower speed. A few scanners also offer a FireWire connection. If you'll be scanning most of your material at very high resolutions, a FireWire connection will help speed up the process of transferring your scanned images to the Mac.

Film Adapters Make sure that any scanner you use includes adapters for the type of film you'll be scanning. Although many midrange scanners offer adapters for 35mm film, some also expand those options to support mounted slides, medium-format film, and more. You should also pay attention to how many frames the adapter can hold at once. Some can batch-process multiple film strips—reducing the number of times you'll have to reload the film adapter.

Software Almost all scanners come with their own scanning software, which often includes features such as dust and scratch removal and color correction (although we recommend performing serious image correction in a dedicated image editor). If you'll be scanning film and prints, you may want a scanner that includes Digital ICE. Part software and part hardware, Digital ICE uses a special infrared light to detect dust and scratches on your film and then removes any trace of them during the scanning process, using the surrounding pixels to fill in the missing data. Unfortunately, Digital ICE is typically included only with higher-end (that is, expensive) scanners.

TIP

BUY A PRINTER, GET A SCANNER

If you don't already own a good ink-jet printer and are planning to buy a scanner for this project, you might want to consider getting a multifunction printer (MFP) instead. Canon, Epson, Hewlett-Packard, and many other companies sell photo-oriented MFPs that can scan, print, and serve as a photocopier. The Epson Stylus Photo RX700 ($400; www.epson.com), for example, can scan 35mm film and slides as well as prints, make borderless prints of your scans, and even print onto special CDs and DVDs to help you quickly identify backup discs.

LOW-END FLATBED SCANNER

CanoScan 8400F ($150), from Canon (www.canon.com):
This is a great all-around scanner. It supports 35mm slides and film, produces very good scans, and gets the job done quickly—all at a reasonable price (macworld.com/0187).

MIDRANGE FLATBED SCANNER

CanoScan 9950F ($399), from Canon (www.canon.com):
This flatbed scanner has FireWire connectivity in addition to USB 2.0, can handle a variety of film sizes (35mm, 120, and 4×5), and offers scanning resolutions of up to 4,800 dpi (macworld.com/0188).

Film Scanners

If you'll be scanning only film, you'll get the best results from a dedicated film scanner, such as the Nikon Coolscan V ED ($550; www.nikon.com). Although they tend to be more expensive than flatbed scanners and are less versatile, film scanners take up less room and generally produce better results. Many film scanners let you feed your film in directly, bypassing clumsy adapters. And if there are holders, they tend to be easier to use than the ones that come with flatbeds.

If you don't have the funds to buy a new film scanner—especially for a onetime project like this—check out eBay for a good used scanner. Many people, once they've finished their own archiving projects, are willing to sell their scanners at a reasonable price.—MACWORLD STAFF

TIP

A CLEAN SCAN IS A HAPPY SCAN

Dust is a good scan's worst enemy. You'll save yourself a lot of frustration by making sure your source material is as clean as possible *before* it goes on the scanner. The best way to do this is to wipe prints with a lint-free photo cloth, starting at the top of the image and pulling straight down. No need to press hard—a light brush should be enough to sweep off the particles. Cleaning slides and negatives is a bit trickier. Start by blowing off any loose dust with a bulb blower (canned air can leave harmful propellants on your film). If particles remain attached because of static electricity, you can purchase an antistatic brush to wipe lightly on the surface. But err on the side of gentleness. It's better to remove the flaws later in your image editor than to risk damaging your precious originals.

In addition to providing a stand-alone application that you can use to control the scanning process, many scanners also include a plug-in that lets you control the scanner through Photoshop or Photoshop Elements. Once you install the plug-in, you can access the scanner while in either program by going to File: Import and selecting the name of your scanner.

Step 2: Choose Scanner Settings

Before you begin scanning, take a moment to organize your material. I find that it's helpful to scan prints of similar sizes during a session. This lets you use the same settings from scan to scan.

If you're scanning a print, simply place the photo face-down on the scanner's glass surface. If you're scanning a negative, you'll probably need to place it in a special holder before you can scan it. Make sure the film's emulsion (the shinier side) is facing the correct direction—usually toward the scanner's light source. Otherwise, your image will be reversed on your monitor. You may also need to remove the white backing in the scanner's lid to reveal an additional light for scanning transparent images (see your scanner's manual for details).

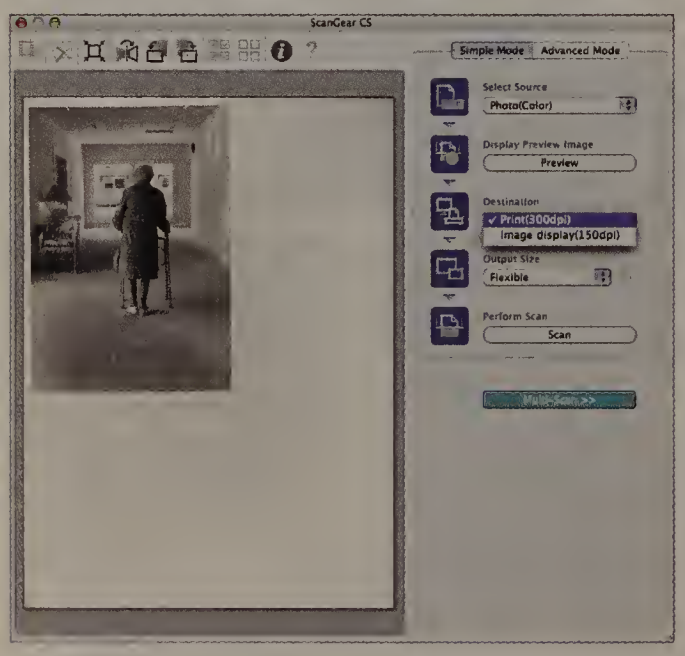
Close the lid and launch your scanning software. You'll typically have two options here: Simple mode and Advanced mode. Simple mode requires fewer decisions but often comes with constraints, such as lower scanning resolutions (see "Full-Featured Scanning"). You may want to experiment to see which mode gives you the best results. I'll walk you through the process of using the Advanced mode.

Get a Preview Start by clicking on the Preview button. This generates a quick look at your print so you can make sure it's positioned properly. Once the image is on your screen, use the selection tool to draw a box around the specific area you want to scan. There's no need to scan the entire glass surface.

Set Color Mode Next, choose a color mode for your scan. The options are usually Grayscale, B&W, and Color. For color prints, the choice is obvious. However, I often choose Color mode even when scanning black-and-white prints. The finished file still appears as a gray-scale image, but it also supports RGB tools, such as Photoshop's Channel Mixer, for additional image-enhancement options.

Set Print Resolution The next choice, Output Resolution, is an important setting—and often a difficult one to understand. Unless you plan to use your images only on the Web or as e-mail attachments, I recommend a minimum resolution of 300 dpi. If you use a lower resolution, you won't capture enough data to make high-quality prints at the same size as the original—never mind making enlargements. In fact, you may need to go higher than 300 dpi.

When choosing a resolution, consider the quality of your source material and the size at which you might want to reproduce the image in the future. If you'll want to reprint the photo only at its original size or smaller, a resolution of 300 dpi should suffice. However, if you want prints bigger than the original, I recommend an output resolution of 600 dpi. If your print is in particularly good shape and you'd like to make a very large reproduction, you may even consider scanning at 1,200 dpi (if your scanner offers this resolution). But keep in mind that file size and scanning time increase substantially as you up the resolution. So you'll



Full-Featured Scanning In Simple mode (left), Canon's CanoScan plug-in limits the scanning resolution to 300 dpi. Advanced mode lets you choose from a much greater variety of resolution options and control additional settings.

need to balance your ambition for getting as many pixels as possible with the realities of your storage space and free time (see "Counting Pixels" for guidelines on choosing the right resolution).

You should also consider whether your original image justifies saving all of those extra pixels. You won't be able to make a stunning 11-by-14-inch print from an underexposed, grainy 4-by-6-inch photo just because you scan it at 600 dpi.

Set Resolution for Negatives and Slides Slides and negatives are much smaller than prints and therefore require a much higher output resolution. If you plan to print 8-by-10-inch or smaller copies of your negatives, a 2,000-dpi output resolution should suffice.

Additional Options Some scanners let you try to address common image problems during the scanning process. The most useful of these options is the Reduce Dust And Scratches filter, which attempts to eliminate dust spots and light scratches. But be careful when using this filter, as it may incorrectly detect a scratch or spot and remove valuable detail from your image. Be sure to check its work. Also keep in mind that the filter can only do so much. For severely marred material, you'll need to perform more-selective retouching with your image editor (see "Tools for Turning Back Time").

Other scanning options you may find useful are Fading and Grain. These work particularly well with old prints that time has mistreated or that weren't of very high quality to begin with. For example, older film often shows more grain than we're used to seeing today. Although you probably can't eliminate the grain entirely, using Grain correction may at least reduce its appearance.

Unless you're scanning photos from a newspaper or magazine, you can safely ignore the Descreen option. I also tend to ignore image-adjustment tools such as Levels or Curves, which can slow down the scanning process. If your originals are good, today's scanners will produce great-looking digital files without much tinkering. And if the images do need extra help, I'd rather work with the tools in Photoshop to restore them.

When you're done, click on the Scan button. The scanner will make its final pass and display an electronic version of the picture on your screen. Most scanners preserve scan settings from one job to the next. So if your next scan uses the same medium, you shouldn't have to do much work. But if you'll be switching back and forth between different media, see if your scanner will let you save your settings as a preset. This way, you can quickly switch between setups without having to retype all of the numbers.

Step 3: Save Your Images

Once you've made your scan, the first thing you should do is save a full-quality version of the file. This is the version you'll use as a backup (in case you ever lose or otherwise muck up your working copy). To ensure that you retain all of the data your scanner captured, I recommend saving your pictures in an uncompressed format, such as TIFF. Yes, the file size for each picture will be larger than if you used a compressed format such as JPEG, but you won't be throwing away any data in the process. Remember, you don't want to have to go back and rescan. Later, I'll show you how to make working copies of your images for easier editing.

When saving your files, use a consistent naming convention. This will make it easier to track down your photos later. I prefer `scan_0001_`*`description`*`.tiff`. The first part lets me know that this is a digitized version of a print or negative. The number provides an easy way to link this scan with the original version of the image (I then label the print or negative with the same number). Lastly, the short description aids in searching. Save all of the images in a folder on your Mac.

Step 4: Back Up Master Scans

Once you've completed a batch of scans, back up your uncompressed files to an external drive or to DVDs for safekeeping. For maximum security, you should always make *two* backup copies of your masters. They can be two external hard drives, two sets of DVDs, or any combination of media. Then save your masters

COUNTING PIXELS

When choosing your scanning resolution, you'll need to balance your desire to make large prints with the amount of file space you're willing to give up. The following tables show that a 4-by-6-inch snapshot scanned at 300 dpi can easily produce a photo-quality 5-by-7-inch print. However, if you scan the same snapshot at 600 dpi, you can make much bigger prints from that file later on. But notice how the file size swells, too. You go from a 6MB file at 300 dpi to a 24MB file at 600 dpi. And keep in mind that the quality of the source material needs to be good if you're going to make large prints. Otherwise, you're just magnifying the image's flaws.

OUTPUT RESOLUTION GUIDE FOR PRINTS

ORIGINAL PRINT SIZE (IN INCHES)	SCAN RESOLUTION (IN DPI)	TYPICAL FILE SIZE (IN MB)[A]	MAXIMUM PRINT SIZE AT 240 DPI (IN INCHES)
4 × 6	300	6	5 × 7
	600	24	10 × 15
	1,200	98	20 × 30
5 × 7	300	9	6 × 9
	600	36	12 × 18
	1,200	144	25 × 35
8 × 10	300	21	10 × 12
	600	82	20 × 25
	1,200	330	40 × 50

[A] When saved as a TIFF file.

OUTPUT RESOLUTION GUIDE FOR 35MM FILM

ORIGINAL NEGATIVE SIZE	SCAN RESOLUTION (IN DPI)	TYPICAL FILE SIZE (IN MB)[A]	MAXIMUM PRINT SIZE AT 240 DPI (IN INCHES)
35mm	2,000	15	8 × 12
	3,000	35	12 × 18
	4,000	61	25 × 38

[A] When saved as a TIFF file.

in two different locations—for example, one at home and another at the office.

Step 5: Make Working Copies

Uncompressed files are important for backups, but the large files are cumbersome for everyday use—especially if you'll be using them with iPhoto. The solution is to create JPEG versions that can serve as working copies of the originals. JPEGs take up much less disk space and require less power to process.

Now, you could open up each master file in Photoshop or Preview and use the Save As command to create a JPEG version. But if you have OS X 10.4 (Tiger), you can streamline this process with the help of Automator. Setting up this workflow takes a few minutes, but you'll get the return on your investment the first time you use it.

To build your workflow, you'll first need two folders: one with the master files you want to convert, and one for the finished JPEGs. Then go to the Applications folder, and open Automator. You'll construct your workflow by dragging items from the Action list into the workspace on the right. Here's the list of actions you'll need for this project, in the order in which they should appear (see "Put Your Files on a Diet"):

Finder: Get Specified Finder Items This action tells Automator which files to convert. Leave the Name field and the Path field empty.

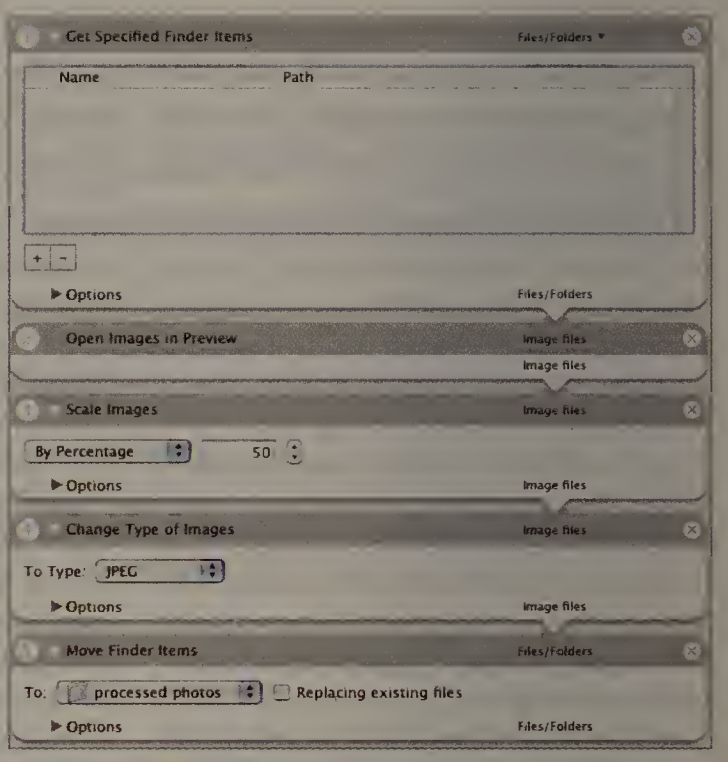
Preview: Open Images in Preview This action opens all the images in Preview.

Preview: Scale Images This step is optional. It lets you scale your scanned image to a more manageable size (in other words, it throws pixels away). For images that you plan to print, skip this step. But for images that you'll mainly be viewing on screen—in slide shows or on the Web—scaling down will save you considerable time and disk space. Remember, you can always return to your archived master file if you decide later that you'd like to make a print.

When you drag the action into your workflow, Automator will ask you whether you'd like to add a Copy Finder Items action. Choose Don't Add. You'll specify a new location in a later step. Choose By Percentage from the pull-down menu, and use the arrows to select the percentage you'd like to scale to. (Due to a bug in the program, just typing in the percentage won't do the trick. The field will revert to 480 percent the next time you open it.) I recommend scaling to 50 percent.

Preview: Change Type of Images This is where you'll specify the new file type. Automator will give you the same warning as in the last step. Again, choose Don't Add. Open the To Type pull-down menu, and choose JPEG.

Finder: Move Finder Items Open the To pull-down menu and choose Other. Navigate to the folder in which you'd like to store your compressed JPEGs, and then click on Open.



Put Your Files on a Diet This Automator workflow lets you convert your space-hogging TIFF files into more-compact JPEGs. Save the workflow as a Finder plug-in, and you can access it by control-clicking on any selected files in the Finder.

To get the most out of your new workflow, I recommend saving it as a Finder plug-in. This lets you access the workflow by simply control-clicking on selected files. In Automator, go to File: Save As Plug-in. Select Finder from the Plug-In For pop-up menu, and give your workflow a name. To run the workflow, select a batch of master files that you'd like to convert, and then control-click (or right-click if you have a multibutton mouse) and select your workflow from the Automator submenu in the resulting contextual menu.

Before you convert a whole batch of scans, test your workflow with one image to make sure everything operates correctly. If there's a hitch, don't panic. You probably just need to make a minor adjustment, such as pointing to the right folder or image. Once you're satisfied with the results, try running the workflow on a batch of ten images and see how your Mac performs.

Step 6: Add Copies to iPhoto

Once the Automator workflow has run and you have your JPEGs, you can drag them into iPhoto to organize them. By default, iPhoto will copy the files into its own file structure. (iPhoto '06 lets you avoid copying your digital images into its managed library; you can instead point iPhoto to a folder elsewhere on your drive.

TIP

TWO BIRDS, ONE STONE

Since you're going to the trouble of scanning, why not also use this opportunity to get those precious mementos organized and adequately protected once and for all? As you finish scanning, place each print or negative in a photo-safe sleeve organized in a binder. (Sleeves typically cost about 25 cents per page.) Most brands of sleeves, such as Print File Archive Preserves (www.printfile.com), provide room along the edges of the sleeves so you can add information such as the date of the photo and, in the case of this project, the file name of the scan. This is a great way to match up your hard copies with the file name for the corresponding digital image, saving you precious time if you need to rescan for any reason—or if you just want to hold the original in your hands.

TOOLS FOR TURNING BACK TIME

If your prints have been sitting in a drawer or a shoebox for the last decade, they're probably looking a little worse for wear. The two biggest problems you'll face are blemishes (such as scratches, dust spots, tears, and smudges) and faded colors. But with the help of an image editor and some third-party software, you can do a lot to restore some of your photos' original beauty.

Removing Dust Spots and Imperfections

Most scanning utilities will take a stab at removing dust and minor scratches from your images. For flaws they miss, iPhoto's Retouch tool is a good second line of defense. To use it, switch to Edit mode in iPhoto, click on Retouch, and then click once on the offending spot. iPhoto will fill in the area with its best guess at what should be there.

If Retouch doesn't solve the problem, you may need to pull out the heavy artillery—Adobe Photoshop or Photoshop Elements. Both offer a collection of useful tools for masking image flaws, including the Healing Brush and Patch tools. My favorite choice for minor flaws is the Clone Stamp tool, which lets you replace dust spots and nicks with pixels from another part of the image. With the Clone Stamp tool selected, choose a brush size just slightly larger than the imperfections you're trying to fix, and then option-click on an area in the photo that has the same tone and color as the section you're repairing. This becomes your sample area. I often find that the best sample area is located right next to the imperfection. Next, center the tool over the flaw, and click once. If you don't get a complete repair the first time, keep clicking until you do. To sample a new area of the image, option-click again; the Clone Stamp will then use that area for your repairs.

In Living Color ColorWasher makes easy work of restoring vibrant color to faded photos.

Restoring Color

Correcting faded colors is a bit more complicated than correcting a color cast (something iPhoto, Photoshop, and Elements all do pretty well). That's because light and ozone affect different colors in different ways. One of the easiest ways to restore faded color photos is to use a Photoshop plug-in designed specifically for that task. My favorite is the $50 ColorWasher 2, by Photo Wiz (★★★★½; macworld.com/1062). ColorWasher does a great job of restoring faded colors in scanning projects (see "In Living Color"). Its Easy mode guides image-editing novices through the restoration process, and its Advanced mode allows more-precise corrections.

However, this feature introduces a new set of complications. I recommend sticking with the managed-library approach.)

You can now remove the original images from your Mac's hard drive, knowing that they are safe and sound on backup drives and discs. And be sure to maintain the same file-naming conventions for your JPEGs that you used for your masters. That way, you'll be able to match up the versions later if necessary.

Step 7: Add Image Details

Digital cameras embed important details such as the photo's date and camera setting within a file, but scanners don't know anything about your original image. If you want to take advantage of search tools, you'll need to supply this information yourself by adding keywords and captions.

Add Vital Data Details such as when and where the shot was taken, who the subjects were, and what was happening at the time will be valuable as the years go by. One of the easiest ways to add this type of data is with iPhoto's Information panel. To display this panel (if it's not already visible), select an image and then click on the Show Information button at the bottom of the Source column. From here you can change the date to reflect when the photo was taken, supply a rating (to quickly weed out the good from the bad), and add a useful caption in the Comments field (you can also use caption data as a search tool). If your cursor is in one of the Information panel's text fields, you can quickly jump to the same field for the next image by pressing ⌘–right bracket (]). Pressing ⌘–left bracket ([) moves you to the previous image.

Add Keywords Keywords give you another way to retrieve your images from within your iPhoto library. For example, I add the keyword *Scan* to all my scanned images. Later, I can simply click on the *Scan* keyword to see just the images that were part of my archival project.

To add keywords, select an image in your library (or ⌘-click to select multiple images), then go to Photos: Get Info. Click on the Keywords tab, and then click on the box next to keywords you want associated with your pictures. If the keyword you want to use isn't already listed, you can add it by opening iPhoto's Keywords preference pane. Click on the plus-sign (+) button, and then type the word you want to add. Your additions will immediately appear in the Keywords tab of the Get Info box.

To use keywords to search for photos, click on the Find Photo By Keyword button (represented by a key icon) below the Source column, and then select the keyword you want to use in the search. iPhoto displays only those images that include the highlighted keyword. To further narrow your search, click on additional keywords.

Just the Beginning

Once you have your prints and negatives scanned, cataloged, and labeled, you can work with them as you would any digital photos. And with a photographic history that goes back past 2001, you can create photo projects that tell a larger story. For example, you can create a slide show of old family photos for a reunion, or a book with one page for each year of your daughter's life. Best of all, you'll have preserved some of your family's most precious documents and mementos from the ravages of time.

DERRICK STORY (www.thedigitalstory.com) is the editor of O'Reilly's MacDevCenter.com.

6 Productivity Tricks

If you could choose to get more work done in less time, wouldn't you? Luckily, with a few simple tips, you can streamline your workflow and use your Mac more efficiently. Here are six ways to make that happen.

1. Make the Most of Your Keyboard

You use your keyboard constantly, but it's easy to forget how powerful it is. Avoid moving your hand to your mouse—and save time in the long run—by learning keyboard shortcuts for frequently used commands.

Learn Shortcuts To learn keyboard shortcuts, first check your favorite applications' menus—often you'll see the shortcuts noted right next to the commands themselves. Here are a few good ones:

> In Apple's Mail, press ⌘-shift-N to check for new mail or ⌘-shift-F to forward a message.

> In Microsoft Word ($239; www.microsoft.com/mac), ⌘-option-R brings up the thesaurus, ⌘-option-P switches to Page Layout view, and ⌘-option-N switches to Normal view.

> In Safari, hop to your home page by pressing ⌘-shift-H. To check bookmarks, press ⌘-option-B.

> In iChat, show or hide your Buddy List by pressing ⌘-1.

> In iTunes, press the spacebar to play or pause.

Create Your Own In Mac OS X 10.3 and later, you can set keyboard shortcuts for any menu command and for most applications. (This won't apply to some older programs or anything running in Classic.) For instance, you may want to create a shortcut for removing attachments from messages in Mail since there's no preset shortcut for that command (Message: Remove Attachments).

Go to the Keyboard Shortcuts tab of the Keyboard & Mouse preference pane. Click on the plus sign (+) and choose your target application from the Application pop-up menu. Type the exact name of the menu command in the Menu Title field—for example, `Remove Attachments`. Then place your cursor in the Keyboard Shortcut field and press the key combination you want to assign to the command. Click on Add and you're set. (For more information, see "Save Time with Shortcuts" at macworld.com/0337.)

2. Personalize the Finder

The Finder is at the center of everything you do on your Mac. Use its features to get easier access to the programs and folders you use most.

Use the Sidebar By default, when you open a Finder window, OS X displays certain folders (such as Desktop and Documents) in its *sidebar* (the column on the window's left side). You can add your own items here, too. Either drag a folder to the sidebar or select a folder and press ⌘-T. Now you're one click away from its contents.

Customize the Toolbar Say there's an application you use often—but not often enough to add it to the Dock. The toolbar located at the top of the Finder window is the perfect place to store a shortcut for it. Drag the application's icon to the top of the Finder window and wait for the cursor to change to a plus sign. When you release the mouse, the icon stays in the toolbar. (If you change your mind, control-click on the icon and choose Remove Item from the contextual menu.) From there, you can click on the icon to launch the program, or drag a file on the icon to open the file.

Switch between Views You probably know that you can set Finder windows to icon, list, and column views via the toolbar. But did you know that you can do the same from the keyboard? Press ⌘-1 for icon view, ⌘-2 for list view, and ⌘-3 for column view.

3. Corral Your E-mail

Sorting through the barrage of e-mail flooding your inbox can be frustrating. Sometimes it can be a headache just to determine which messages you've read and which ones are new.

The Tiger version of Apple's Mail includes a great organizational tool: smart mailboxes. Use them to create a mailbox that shows only unread messages. Select Mailbox: New Smart Mailbox, click on the left

Drag and Wait Drag an application icon to the Finder window's toolbar to store it there for quick access.

pop-up menu, and select Message Is Unread. Name the mailbox something like Unread Mail and save it. Now, when you click on this mailbox, you'll see only messages you haven't yet looked at.

You can create other types of smart mailboxes—for instance, one for messages from specific contacts (select From Contains *contact name*) or companies (select From Contains *domain name*). Or you can create a mailbox for messages containing certain keywords (Subject Contains *keyword* or Entire Message Contains *keyword*). To learn more, see "Use Mail's Smarts" at macworld.com/1195.

4. Preserve Web Pages

When browsing the Web, you probably happen upon pages you'd like to save for future reference. Sure, you could bookmark them, but the contents—or the URL itself—may have changed when you go back, and that means spending extra time searching.

Using Safari The easiest way to save Web pages is to use Safari's Save As Web Archive feature. Select File: Save As; then choose Web Archive from the Format pop-up menu. Doing so saves a special archive file that retains the text, images, and layout of the original page.

Going Further For even more control over Web archives, use a special tool. You'll find a wide variety out there: Rick Cranisky's SiteSucker (free; www.sitesucker.us), Limit Point Software's Blue Crab ($25; www.limit-point.com), and Softchaos's Webstractor ($80; www.softchaos.com) are just a few. My current favorite is Bare Bones Software's Yojimbo ($39; www.barebones.com), an information-management application designed to store notes, serial numbers, passwords, Web archives, and more.

To save a page to Yojimbo as a Web archive, copy the page's URL, press Yojimbo's hot key (F8 by default) to display the Quick Input panel, press ⌘-5, and then press return. Open Yojimbo to view your Web archives or search them by keyword.

5. Find Files Faster

If you're anything like me, you probably hate constantly navigating through several levels of folders to locate the file or application you want to open. To save time, use a *launcher*.

LaunchBar This excellent $20 program from Objective Development (macworld.com/0954) lets you open applications and files without taking your fingers off the keyboard. To open iTunes, for example, press LaunchBar's activation keys (⌘-spacebar by default); it will appear below the menu bar. Next, type a few letters from the name of the application you want to open—iTunes, in this case. LaunchBar reveals a list of programs, files, and folders that contain these letters. Use the arrow keys to select iTunes and press return to open it. The program learns your shortcuts, so after you use a certain letter combination a few times for an item, that item's name jumps to the top of the list.

TRY THIS

Bounce Unwanted Mail

Even though Mail's Bounce command (Message: Bounce) makes it appear as though your ISP has rejected a message sent to you, it isn't a terribly effective way to discourage spammers. Why? Nearly all the spam you receive carries a forged From address—meaning that you'll likely bounce the message to an innocent address. It can be effective, however, when you're dealing with other sorts of people who won't leave you alone.

If such a creep is bothering you, download a copy of Evan Chaney's free Bounce Mail 1.0 AppleScript (macworld.com/1168) and install the script in /Library/Scripts/Mail Scripts. Then go to Mail: Preferences and click on Rules. Click on Add Rule and make a rule that looks something like this: If Any Of The Following Conditions Are Met: From Contains *e-mail address of creep*. Perform The Following Actions: Run AppleScript *Bounce Mail script file path* (use the Choose button to navigate to the script).

Name the rule and click on OK. When the creep sends you an e-mail, the message will arrive in your inbox (unless you've used a rule to filter it), but he or she will receive a bounce message that looks like a rejection from your ISP.—CHRISTOPHER BREEN

Butler Another cool utility is Peter Maurer's free (donations accepted) Butler (macworld.com/0286). It performs many of the same tricks as LaunchBar, but it also has powerful bookmark-management features, multiple Clipboards, and the ability to assign keyboard shortcuts for many common actions.

6. Get a Smarter Rodent

Apple has long clung to the one-button mouse as a symbol of simplicity. But additional buttons can save you hundreds of clicks each day, especially if you program them for common actions, such as double-clicking or control-clicking. If you're still using a one-button Apple mouse, consider upgrading. If you already own a multibutton mouse, make sure you've programmed the buttons to maximize productivity.

Your Apple Mouse Apple's Mighty Mouse ($49; www.apple.com) offers four buttons, though you need OS X 10.4 to customize it fully. In the Keyboard & Mouse preference pane, go to the Mouse tab. Here you can program the extra buttons to launch Dashboard, Exposé, or any application you use frequently.

For more customization options, check out the $20 SteerMouse software (macworld.com/1196), which lets you program your Mighty Mouse's buttons to perform double-clicks, keyboard shortcuts, scrolling, and more. The software even lets you program separate commands for different applications. Plus, it supports both Panther and Tiger.

Other Mice Don't mind if your mouse and Mac aren't a matched set? Consider an input device from a company such as Kensington (www.kensington.com) or Logitech (www.logitech.com). Using the included software, you can program buttons to do such things as emulate a double-click, invoke keystrokes (say, ⌘-S for Save), eject a CD, or launch a Web page.

KIRK McELHEARN is the author of many books, including *How to Do Everything with Mac OS X Tiger* (McGraw-Hill Osborne, 2005).

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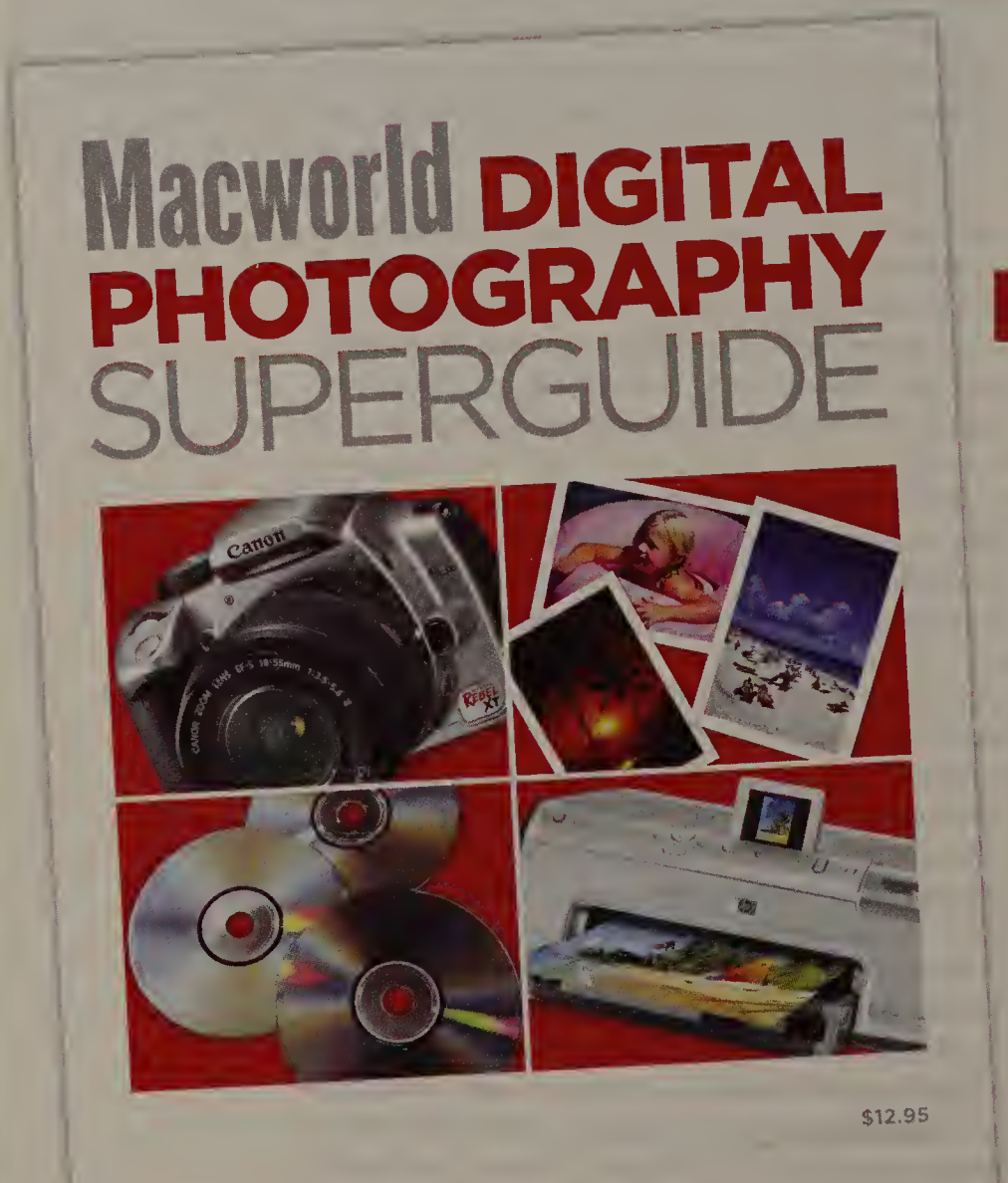

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Back Up Your iTunes Library

Digital files are portable, they sound and look pretty good, and they don't take up the physical storage space that CDs and DVDs do. But there's a big downside—one system crash or failed hard drive, and you can lose everything you've spent hours ripping from CDs or, even worse, purchasing from the iTunes Music Store. Here are several ways to prevent the loss of your precious files.

1. Go the iPod Way

If you own an iPod and sync your entire iTunes library with it, you've already got a full backup in the palm of your hand. Though Apple makes the sync process a one-way journey (from iTunes to the iPod), several utilities let you copy files back from the iPod to your Mac. Free apps such as Isaac Huang's iPodDisk (ipoddisk.ourbiti.com) and Whitney Young's Senuti (★★★★½; *Mac Gems*, macworld.com/0965) will help you salvage your collection in case of catastrophe.

2. Archive and Copy

If you're looking for a simple (but not extremely efficient) method, you can use the Finder to back up your collection to an external hard drive or a DVD. To save space, compress your library first. Control-click on your iTunes folder (by default it's stored in your Music folder) and select Create Archive Of "iTunes." This will create a zipped archive that includes your iTunes Music Library.xml file—essential for restoring your ratings, play counts, and other customizations—and that you can drag and drop to an external drive or burn to DVD (if your collection is small enough). But if you're really serious about your collection, you'll want to take stronger steps to protect it on a regular basis. Check out the next few methods.

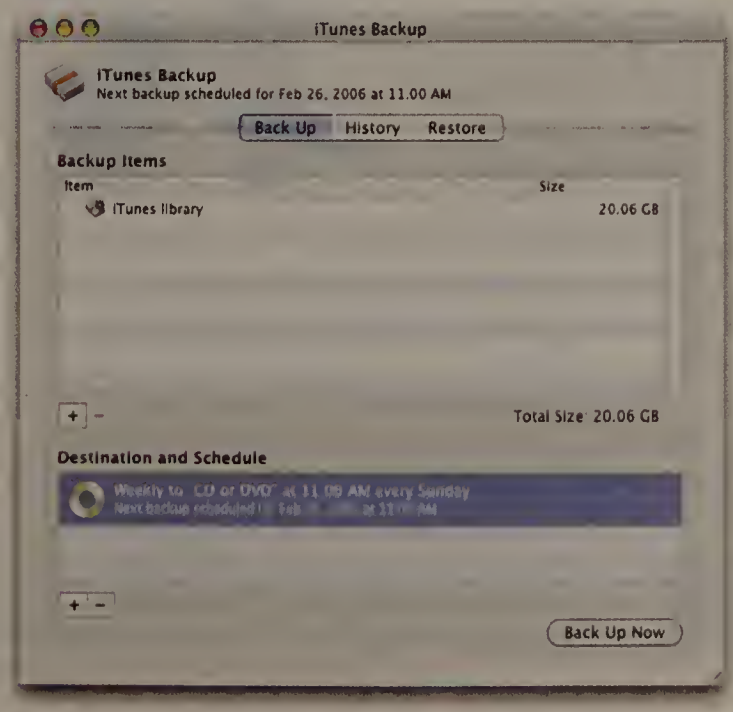
3. Back Up with Backup

If you have an Apple .Mac account, the free Backup application is by far the easiest way to protect your library. Open Backup and create a new plan by clicking on the plus-sign (+) button in the lower left corner of the window. If you're launching Backup for the first time, click on the Continue button and then follow the instructions in the window that comes up. Highlight the Custom template at the bottom, click on the Choose Plan button, and label your new plan something like iTunes Backup. Click on the plus-sign button beneath the Backup Items window, click on the QuickPicks tab, select iTunes Library from the list, and click on the Done button. Backup will scan your Library folder and display its size, which will help you determine where you want to back it up—to an external drive or iPod, to your .Mac iDisk, or to optical media. The Destination And Schedule window lets you set how often the task is performed and choose a backup medium. You can, for example, set up Backup to copy your Library folder to an external FireWire drive at the same time every week.

4. Use Smart Playlists

Don't have an external drive, an iPod, or a .Mac account? Not to worry—iTunes has all the tools you need for safeguarding your library. If you just want to make a onetime backup, open iTunes' preferences and click on the Advanced item. Select the Burning tab, and under Disc Format make sure that Data CD Or DVD is selected. Next create a new iTunes playlist, highlight everything in your library, and drag the contents to the playlist. If you have podcast subscriptions, you may want to instead create a smart playlist that excludes them—unless, of course, you want to preserve Adam Curry's daily musings for posterity—by selecting New Smart Playlist from

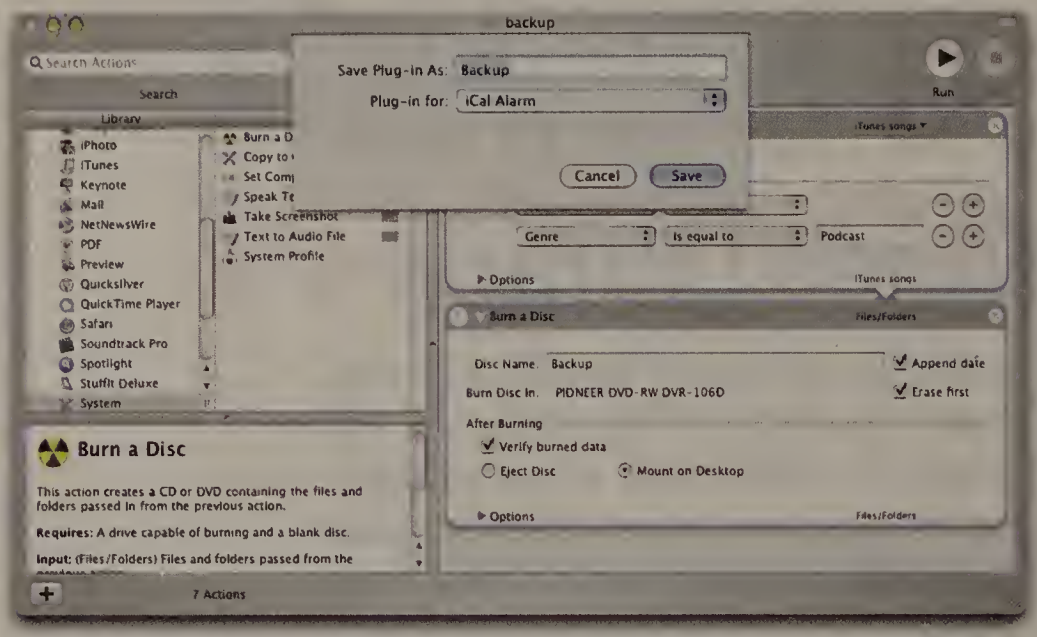
continues



Back It Up With Apple's Backup application, .Mac members can easily save iTunes files to an iDisk, to an external hard drive or iPod, or to optical media.

playlist

Want more tips on digital music? For iPod- and iTunes-related expert advice and breaking news, as well as reviews of all the latest gadgets, check out playlistmag.com.



Make It Automatic By saving your Automator workflow as an iCal plug-in, you can sit back and let your Mac do the grunt work.

iTunes' File menu and setting the rule to Podcast Is False. This will create a playlist with all of your music and videos but without any of your podcasts. Smart playlists are also helpful if you want to back up only certain items, such as purchased music or audiobooks, or if you want to exclude low-rated songs or certain file types from backups. You can even use them to back up your tunes by genre, artist, or other customized settings.

Once you are happy with your playlist, click on the Burn Disc icon in the upper right corner of your iTunes window, and insert a recordable DVD or CD. Unless you have a very small library, you'll need several discs—but iTunes will prompt you through the process. For good measure, make sure to store a backup copy of your iTunes Music Library.xml file somewhere to preserve your ratings and play counts.

But what about the music you add *after* that initial backup? Smart playlists can help you schedule regular backups without having to burn your entire library repeatedly. Once you've made your initial backup, create a smart playlist (or control-click on the smart playlist you already created to edit it, and click on the plus-sign button to add a new rule) and choose Date Added Is After—iTunes should fill in today's date for you. The new list will be empty, but as you continue to add songs to your library, they will automatically appear in your backup playlist. This will help you make regular incremental backups. I like to back up my playlists on the last day of every month, but depending on how frequently you buy music or videos from the iTunes Music Store or rip your personal collection, you may want to choose a different schedule. Just remember to edit your smart playlist every time you make a backup, by changing the date—otherwise, you'll find yourself with a lot of copies of the same songs.

5. Automate It

If you're not afraid of a little prep work, this is perhaps the best method for backing up: use OS X 10.4's Automator and iCal. Launch Automator and click on the iTunes icon in the Library window. Then drag the Find iTunes Items action in the Action window to the workflow area. This action works essentially just like a smart playlist. Select Find Songs (don't worry, this also includes videos) and Date Added This Month. (Again, depending on how much music you add on a regular basis, you can increase or decrease this time frame.) If you want to exclude podcasts, add a second rule and select Genre Is Not Equal To Podcast. Next click on the System icon in the Library window, and drag the Burn A Disc action to your workflow area under the iTunes action. In the Disc Name field, enter `Backup` and select the Append Date option. You can then save the workflow and quit—but if you want to automate the process and perform regular backups, you need to follow a few more steps.

Select Save As Plug-in from Automator's File menu, and then give the workflow a name and select iCal Alarm from the Plug-in For pop-up menu. Click on Save, and Automator will launch iCal and create a onetime alarm event for your workflow. To make it a repeating event, click to the right of Repeat in the event's Info pane and select Custom from the pull-down menu. Schedule your iCal event to match the settings you defined in Automator—monthly or weekly, for example. From now on, iCal will alert you when it triggers the workflow to run. (If you prefer to back up to an external hard drive, replace the Burn A Disc action with the Copy Finder Items action from the Finder Actions lists, and specify where to save your files.) □

MATHEW HONAN writes about technology for *Time*, Salon.com, and *Wired*. He keeps a Mac-oriented Weblog at mac.honan.net.

ICON BY PAUL HOWALT

CHECK IT OUT

iMuffs Headphones

High on many iPod users' wish lists is the addition of Bluetooth technology to allow for wireless headphones. If you don't want to wait, Wi-Gear's new iMuffs MB210 are one way to cut the cord.

The $180 iMuffs, available soon in black or white, feature a transmitter that connects to any iPod with a dock connector. The behind-the-head–style headphones include controls for pausing playback, changing volume, skipping tracks, and searching through music.

You can also pair the iMuffs with a Bluetooth-equipped cell phone; a built-in microphone lets you talk to callers. When you receive a call, the iMuffs pause music playback; when the call is over, music resumes.

The MB210 model is an update to the company's MB200, and it includes new Clear Voice Capture technology, which provides echo and noise cancellation. The MB210 also has improved range, better signal reliability, louder and clearer audio, and better compatibility with Bluetooth-equipped devices that conform to the Bluetooth 2.0 Advanced Audio Distribution Profile (A2DP) specification. A rechargeable lithium polymer battery provides up to 16 hours of playback time per charge (www.wi-gear.com).—PETER COHEN

Are you a laptop person or a desktop person?

Join the Macworld Reader Panel to enter our "Mac Choice Sweepstakes" where the winner gets to choose between a G5 Power Mac or a 15" PowerBook†. As a panel member you will be invited to participate in online research surveys and discussions. And panelists get a chance to win every time they participate in online surveys. Participation in the Mac Choice Sweepstakes is open to all eligible Macworld readers. Whether you're a beginner, expert, switcher, notebook or desktop user–join the Macworld Panel and let your voice be heard. *We're listening!*

To participate, please visit: **www.macworld.com/surveys/joinpanel/**

NO PURCHASE NECESSARY TO ENTER OR WIN. Void where prohibited by law. Drawing is open to all eligible Macworld readers who complete the survey. We must hear from you by 1/31/2006 to be included in the drawing. Winner will be notified by email approximately one week after survey close, on or about 2/7/2006. For Official Rules, please visit www.macworld.com/surveys/panel/rules.cfm. All information provided will be kept completely confidential and only used in combination with other respondents. Personal information will not be sold, shared or used in any way outside the scope of this research. For more on privacy, visit www.macworld.com/surveys/panel/privacy.htm.

†Subject to availability at time of drawing.

Macworld

One iPhoto, Many Users

iPhoto 6 offers numerous options for sharing image files with other people. For example, you can start a photocast, turn on iPhoto's sharing options, or send photos in an e-mail. But the program doesn't offer an easy way to give multiple users or multiple Macs full access to an *entire* iPhoto library—including keywords, albums, and ratings.

Perhaps you want to assign keywords in your spare time at work, and then post albums to the Web from your iMac at home. Or maybe you and your spouse want to be able to upload photos to a joint library from separate user accounts. Whether you have multiple Macs, multiple users, or both, there are only a few ways to share your iPhoto library seamlessly. Though the three options I describe in this article require a bit of setup work, you won't need any additional software or arcane Unix commands. The option you choose will depend on your setup.

Missing in Action
If you move your iPhoto library to a new location (to make it easier to share with others), you'll need to tell iPhoto where to look for it. Hold down the option key while launching the program to bring up the Choose Photo Library dialog box.

(Although we tested these techniques with iPhoto 6, they should also work with iPhoto 5.)

Keep in mind that no matter which of these methods you use, only one person at a time may use a shared iPhoto Library folder.

Option 1: Use a Shared Hard Drive

One of the easiest ways to give multiple users or multiple Macs access to the same iPhoto library is to put the library on an external hard drive that everyone can reach. This option eliminates any problems with permissions and frees up disk space on your Mac.

If you have an iPod with unused storage space, you can use it as an external hard drive and take your library with you wherever you go (to set this up, select Enable Disk Use in iTunes' iPod preference pane).

Keep in mind that external hard drives are more vulnerable to damage or theft. If you choose this option, I recommend regular backups to ensure that you don't lose all of your photos in one stroke of bad luck.

Step 1 In the Finder, select the icon for the external hard drive on which you want to store the shared iPhoto Library folder. Choose File: Get Info to open the drive's Info window.

Step 2 In the Ownership & Permissions pane (if the pane isn't visible, click on the triangle next to its name), make sure the Ignore Ownership On This Volume option is turned on, and then close the Info window.

Step 3 In the Finder, locate the iPhoto Library folder you want to share (you'll find it in the user folder's Pictures folder). Then drag the folder to the external hard drive.

Step 4 The first time you open iPhoto in each account or on each computer, hold down the option key while launching the program. In the Choose Photo Library dialog box that appears (see "Missing in Action"), click on Choose Library. Navigate to the iPhoto Library folder on the external hard drive and click on Open. You should have to do this only once. The next time you open iPhoto, it will know to look on the specified drive for your library.

Tip If the two Macs in question are your own laptop and desktop systems, consider leaving the iPhoto Library folder on the laptop. When you need to access the library from your desktop, connect the two computers via FireWire and then boot the laptop in FireWire Target Disk Mode (hold down the T key while the laptop starts up). You'll now be able to use it as an external hard drive.

Option 2: Use a Shared Disk Image

Thanks to Mac OS X's permissions system, sharing resources between two or more user accounts on the same Mac can be a tricky process. Sure, you could place your iPhoto library in an account that every user has access to, but in doing so you'd lose the benefits of individual accounts—personalized workspaces, secure access to personal files and documents, and so on.

If you want to keep user accounts secure but don't have an external hard drive, you can work around OS X's permissions conundrum by placing a *disk image* of your iPhoto library in the Shared folder for other users. A disk image is a special file that OS X treats as though it were an external hard disk, letting you write to and read from it.

So why use a disk image instead of the iPhoto Library folder? If you store the iPhoto Library

folder in the Shared folder, iPhoto incorrectly sets permissions on thumbnails for newly imported images. By default OS X ignores permissions on a disk image. The downside of using a disk image is that you'll have to mount the disk image before each iPhoto session, and unmount it before anyone else can use it.

Step 1 Open Disk Utility (/Applications/Utilities), and click on the New Image button.

Step 2 In the Save As text field, enter a name for the disk image (for example, iPhoto Image), and then save it in the /Users/Shared folder. From the Size pop-up menu, choose Custom. Set the largest imaginable size for your library (don't skimp—you can't expand the image later, and choosing a larger size doesn't use any more space now). Leave Encryption set to None (unless those photos are exceedingly private), and then choose Sparse Disk Image from the Format pop-up menu (see "Create a Disk Image"). When you're done, click on Create. Disk Utility will create the disk-image file and mount it as a volume.

Step 3 In the Finder, open the Shared folder (/Users/Shared) and select the new disk image file. Choose File: Get Info to open the Info window.

Step 4 In the Ownership & Permissions pane, click on the Details triangle, and then click on the lock icon next to the Owner pop-up menu. Choose Unknown from the Owner pop-up menu, enter your administrator password when prompted, and then close the Info window.

Step 5 Drag the iPhoto Library folder from the user folder's Pictures folder to the mounted disk image you just created.

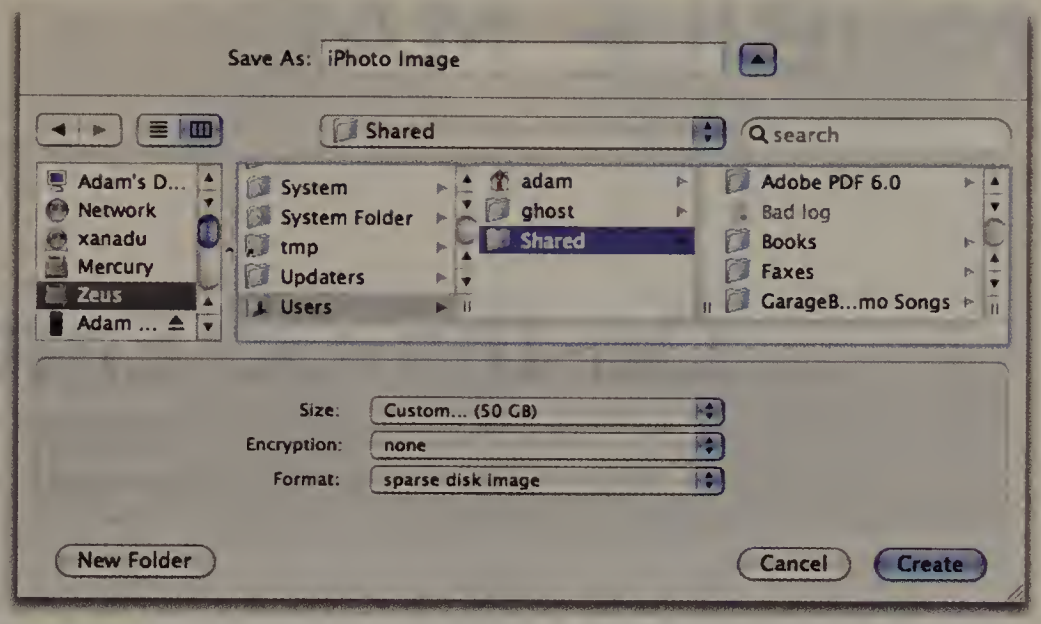
Step 6 In the currently active account, hold down the option key while launching iPhoto. When the Choose Photo Library dialog box appears, click on Choose Library and select the iPhoto Library folder from the mounted disk image.

Step 7 Quit iPhoto. Unmount the disk image by dragging it to the Eject (Trash) icon in the Dock.

Step 8 Switch to the second user account via Fast User Switching. In the Finder, open the Shared folder and double-click on the disk-image file to mount it. Then repeat step 6, so iPhoto knows where to find the iPhoto Library folder. You'll need to do this for each user who will be accessing the disk image.

When you're done, every user should be able to launch iPhoto normally. However, each person must mount the disk image before launching iPhoto and must unmount the disk image before anyone else can use it. In Tiger, you can easily automate the process of mounting the disk image and opening iPhoto (go to macworld.com/1263 to download the necessary Automator workflow).

Tip If you're comfortable entering Unix commands into Terminal, there's an easier way to share an iPhoto Library folder across multiple accounts on the same Mac. The secret lies in using Access Control Lists in Tiger. For details on setting this up, go to macworld.com/1206.



Create a Disk Image When you're creating a disk image for your iPhoto library, be sure to give yourself plenty of room and to set the Encryption menu to None. Then set the Format menu to Sparse Disk Image.

Option 3: Use a Shared Network Volume

If you have multiple Macs networked together via 100BaseT or faster Ethernet, you can give everyone access to a single iPhoto library by placing it on a shared network volume (though you can use an 802.11g wireless network for this, performance may be debilitatingly slow). Here I'll show you how to use your own Mac to share the iPhoto library. An even better option might be to store the shared iPhoto Library folder on a central file server accessible to all networked Macs. If you go that route, just make sure that everyone is allowed to log in to the server account that holds the iPhoto Library folder.

Step 1 On the Mac that will host the shared iPhoto Library folder, open the Sharing preference pane, turn on the Personal File Sharing option, and click on the Start button.

Step 2 On each remote Mac, open a new Finder window and select the Network icon in the sidebar. Select the name of the host Mac and click on Connect. Enter the user name and password for the account that owns the iPhoto library, and activate the Remember This Password In My Keychain option. In the next dialog box, select your home directory as the volume to mount and click on OK. The network volume will now appear in the Finder's sidebar.

Step 3 While still on the remote Mac, hold down the option key as you launch iPhoto. Click on Choose Library, and then select the iPhoto Library folder on the shared network volume.

After performing these steps, you and everyone else sharing the iPhoto Library folder can launch iPhoto normally. □

Contributing Editor ADAM C. ENGST is the publisher of TidBits.com and the *Take Control* e-book series, and the author of *iPhoto 6 for Mac OS X: Visual QuickStart Guide* (Peachpit Press, 2006).

MOBILE MAC

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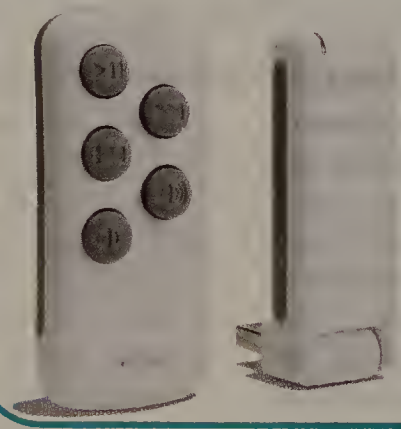
On-the-Go Entertainment

Sure, sure, we know: you only use your laptop for work. But on those *rare* occasions when you're on the road, you're done with the labors of the day, and you need a little diversion, that PowerBook, MacBook Pro, or iBook makes a dandy little portable entertainment center—*if* you had the foresight to bring along the right software and peripherals. Here's what I recommend.

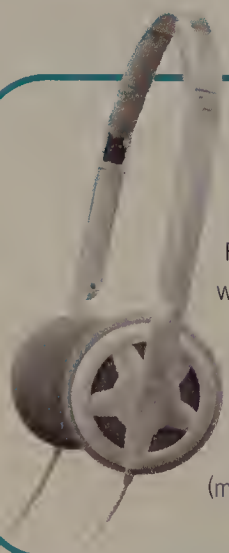
REMOTE CONTROLS
Take Control

If you've got one of the new MacBook Pros, you've got an Apple Remote Control. If not, you'll need a little bit of help controlling your laptop media center from a hotel-room bed. Griffin Technology's diminutive **AirClick USB** (●●●●; macworld.com/1266) is a five-button remote that comes preconfigured for many applications. Keyspan's $60 infrared **Express Remote** (●●●; macworld.com/1267) is bulkier and comes with a USB-connected receiver; the device is extremely configurable. (A $40 model works with Front Row only, but does more than Apple's remote.) Finally, if you've got a Bluetooth-capable mobile phone, Salling Software's $24 **Salling Clicker** (www.salling.com) gives you the ability to use your cell phone to control (via Bluetooth) multimedia applications on your Mac, and the free **MediaCentral Remote** (macworld.com/1268) enables you to use Salling Clicker with MediaCentral.



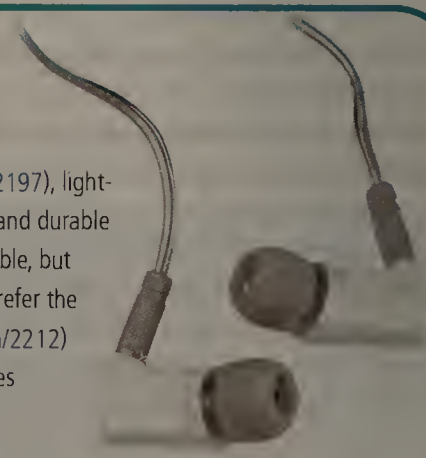
SPEAKERS
Bring the Noise

One you've reached your destination, you'll want to take the headphones off and listen out loud. If you travel with a set of portable iPod speakers, you can probably connect them to your laptop. But instead of carrying around a bulky battery-powered system, I recommend speakers that get both audio and power from your laptop's USB port—one cable and you're ready to go. Logitech's $80 **V20 Notebook Speakers** (www.logitech.com) are the best I've heard, with both decent bass and surprisingly loud volume; a 10-by-7.5-by-2.2-inch hard case keeps the 1.5-pound system safe in your suitcase. If you're willing to trade sound quality for a lower weight, Tritton Technologies' $30 fold-up **Sound Bite** (●●●●; macworld.com/1269) is a major improvement over stock laptop speakers, and at only 9.6 ounces, it's very carry-on friendly.



HEADPHONES
Hold the Phones

For private listening on an airplane, I particularly like Sennheiser's $60 **PX 100 W** (●●●●●; macworld.com/2197), lightweight traditional headphones that not only sound great but also are comfortable enough to wear for hours and durable enough to withstand the rigors of travel. AKG's $50 **K 26 P** (macworld.com/2103) aren't quite as comfortable, but they do block some external noise and offer a bigger kick for bass-heavy music and movie effects. If you prefer the peace and quiet you get from in-ear headphones, Ultimate Ears' **super.fi 3 Studio** model (macworld.com/2212) offers impressive bang for the buck, at only $100. For $50 more, Xtreme Mac's $150 **FS1** in-ear headphones (macworld.com/1270) produce bass the likes of which you don't usually get from in-ear headphones.



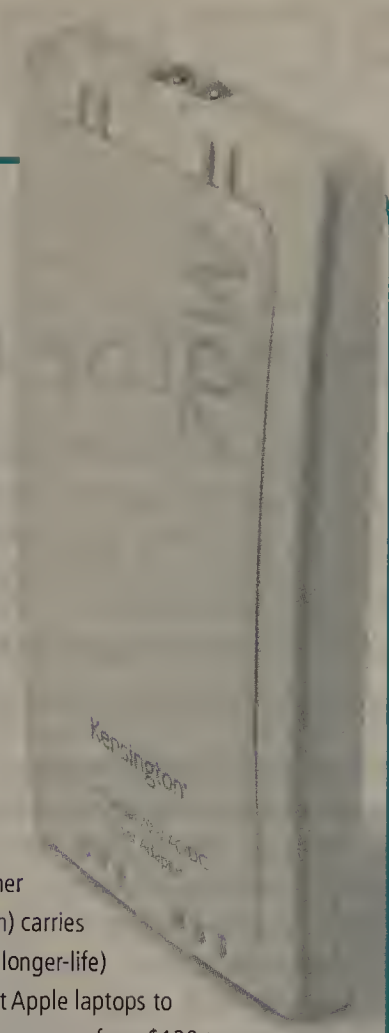
AIRCLICK USB, EXPRESS REMOTE, V20 NOTEBOOK SPEAKERS, SOUND BITE, AND KENSINGTON POWER ADAPTER PHOTOGRAPHS BY PETER BELANGER

POWER SUPPLIES

Power Up

Multimedia fun takes power. And while Apple's laptops get pretty good battery life (as laptops go), watching video and listening to music can suck up juice at a frightening pace. So it makes sense to bring some extra power supplies.

As long as you're near some sort of power outlet, either Kensington's $120 **70 Watt AC/DC Power Adapter for Apple Notebook** (www.kensington.com) or iGo's $120 **Juice70 Universal Notebook Power Adapter** (www.igo.com) will keep you up and running. Each combines adapters for AC power, car accessory jacks (also known as cigarette lighters), and the special power outlets found in newer airplanes. With an optional $25 adapter, either can charge your laptop and another electronic device at the same time. (The iGo works with recent PowerBooks and iBooks; if you have an older laptop, you'll have to buy a special tip for it. The Kensington includes tips for recent PowerBooks and iBooks, along with a tip for dock-connector iPods. Unfortunately, neither adapter works with the MacBook Pro's new MagSafe power port.)

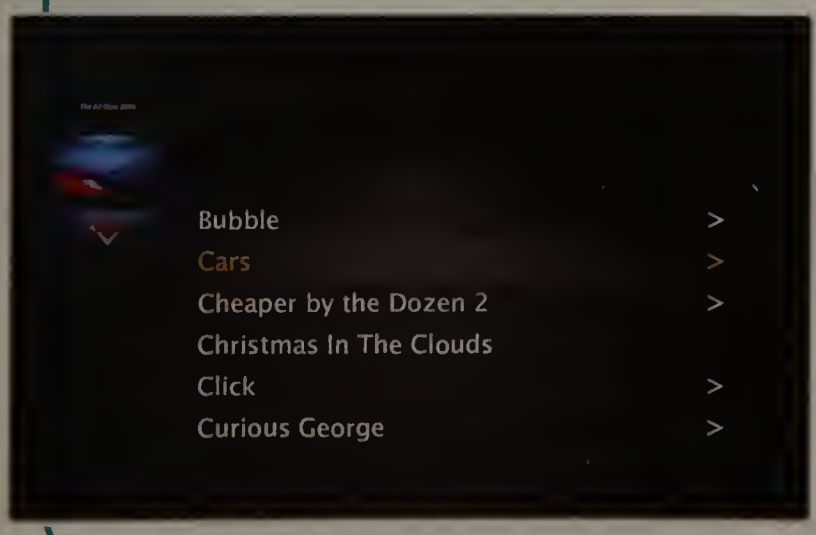


If your travels will strand you far from a power jack, you'll need extra battery life. Apple sells additional batteries, good for a couple more hours of fun, for $129 each. Other World Computing (www.macsales.com) carries its own brand of higher-capacity (and longer-life) batteries for everything from the latest Apple laptops to 1998-era Wall Street PowerBooks; prices range from $120 to $160. If you need more play time, Lind Electronics' $350 to $450 **Power Packs** (www.lindelectronics.com) provide 8 to 10 hours of additional battery life via a large, thin battery "slab"—half an inch thick and approximately the size of a sheet of 8.5 by 11 paper—that packs neatly in your laptop bag. A Power Pack adds 2.4 to 3.4 pounds of weight to your bag, but for the additional weight you'll likely be able to watch three DVDs (or, I suppose, finish a few more hours of work) on that transatlantic flight.

SOFTWARE

Second Row

If you've got a MacBook Pro, you've already got Apple's Front Row software, which lets you browse your Mac's multimedia content via an iPod-like interface, using the keyboard or the Apple Remote Control. But if, like most people, you have an older PowerBook or iBook, you can't use Front Row (yet). You do have an alternative to using iTunes, iPhoto, and DVD Player one at a time. Equinux's free **MediaCentral** (www.equinux.com) mimics Front Row's look-and-feel. Pressing shift-escape brings up the on-screen browser, which lets you access video in your Movies folder (and VIDEO_TS folders ripped from DVDs anywhere on your drive); music in your iTunes library, in a shared iTunes library, or on a connected iPod; photos in iPhoto; and, if you have a broadband Internet connection, streaming Internet video. (The latter requires the Windows Media and Real Player browser plug-ins.) If you want to play something QuickTime or MediaCentral can't handle, check out the **VLC** media player (www.videolan.org/vlc) or the open-source **MPlayer** (mplayerosx.sourceforge.net).



What to Watch?

Although you might think your on-the-road viewing options are limited to video purchased from the iTunes Music Store and DVDs, there are plenty of other ways to get video to go.

To start, you can conserve battery power—and keep your actual DVDs safe—by ripping your movies to your hard drive. For the best quality, GeezerButtz Software's free **MacTheRipper** (♦♦♦♦; macworld.com/1271) copies DVDs in all their full-quality (and full-size—about 4.5GB per movie) splendor. If you don't need perfect quality, the free, open-source **HandBrake** (handbrake.m0k.org) will rip a DVD to a smaller, lower-quality file playable by QuickTime Player or MediaCentral.

For TV lovers, Elgato's $330 **EyeTV 200** (www.elgato.com) works much like a computer-based TiVo. Using its built-in TV tuner, you can record shows at home—in MPEG-2 or MPEG-4 format—for later viewing on the road.

Sling Media's **Slingbox** ($250; www.slingbox.com)—a Mac version of which was just announced—lets you redirect live video streams from your cable or satellite TV to any computer on the Internet. You connect the Slingbox hardware at home to your Mac and then use the SlingPlayer software to stream content over the Net.

Two caveats about carrying all this video: If your laptop's hard drive is getting full, consider a portable FireWire or USB hard drive for storing your files. And if you want to watch any of this stuff on your hotel room's TV, rather than your laptop's screen, be sure to bring along an S-Video or composite video cable, along with the adapter that comes free with the PowerBook. (It's a $19 add-on for the MacBook Pro or iBook.)

DAN FRAKES is a *Macworld* senior editor.

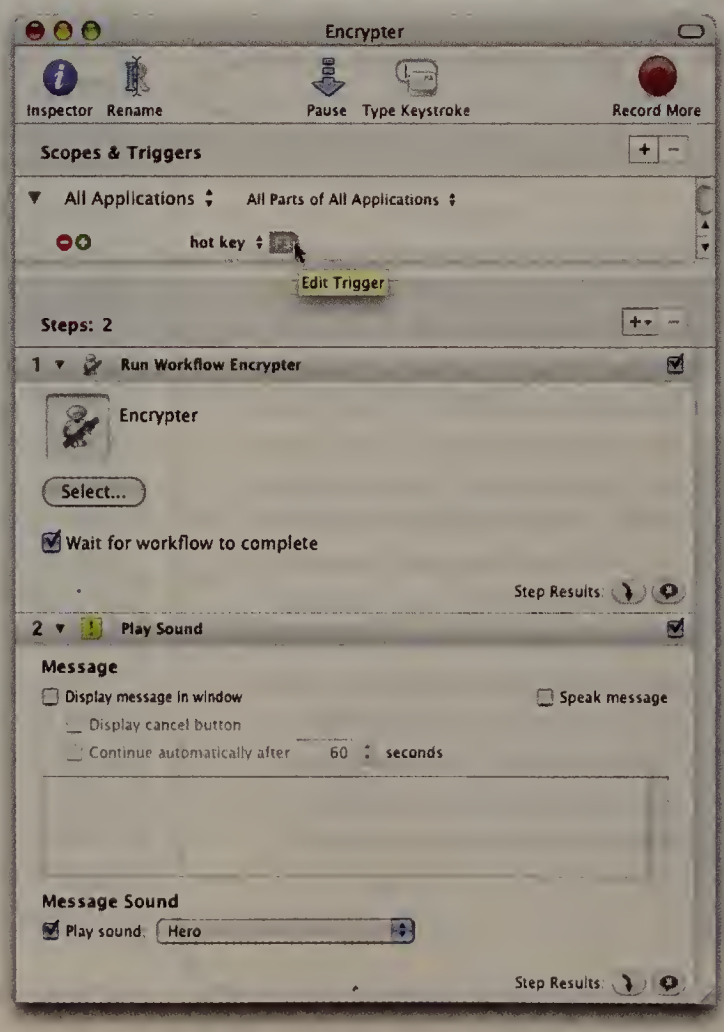
Automator Overdrive

If you've taken Automator out for a spin, you know that Apple's automation tool really does make it easy to simplify repetitive tasks. But after experimenting with its built-in actions and with actions culled from the Internet, you probably still wish you could do more. Luckily, lots of *other* automation tools work flawlessly with Automator. Put them together, and you're ready to shift into high gear.

Mix Automator and AppleScript

Of course, AppleScript is a little geeky (it's a programming language, after all), but it's got more power than a Porsche—and that makes it a perfect complement to Automator. (To get up-to-speed with Automator basics, see "Take Control of Customizing Tiger" at macworld.com/1218. For AppleScript basics, see "Amazing AppleScript!" at macworld.com/1219.) Link the two by using Automator's Run AppleScript action. That way, you can take advantage of the drag-and-drop ease of Automator for the simple stuff, and use down-and-dirty AppleScript code for the hard stuff.

Enjoy the Weather Here's how you'd use these tools to put a current weather map of the United States on your desktop. Launch Automator (/Applications). Then drag the Automator: Run AppleScript action into the pane on the right of the Automator window.



One-Button Workflow Combine QuicKeys and Automator to trigger complex workflows with one keystroke. If you'd like your shortcut to work only in certain programs, use the All Parts Of All Applications pop-up menu.

Switch to the Finder. Go to the /Library/Scripts/URLs folder and double-click on the Download Weather Map.scpt file. Apple's Script Editor application will open with this script's code revealed. The script goes out to the Internet and downloads an up-to-date weather map. (Click on the Run button in Script Editor to see for yourself.) Select every line of code *except* the last one, which begins with `tell application "Finder"`. (That line *opens* the file. You want the image to fill your entire desktop.)

Copy the text and switch to Automator. Paste the text in place of the generic `(* Your Script Goes Here *)` line in the Run AppleScript action. Now run your workflow by clicking on Automator's Run button. A file named weathermap.jpg will appear on your desktop. (This step is important—you must leave the weathermap.jpg file on your desktop so Automator can use it as your desktop picture.)

Drag the Finder: Get Specified Finder Items action to the bottom of your Automator workflow. Click on the plus-sign (+) button and navigate to the weathermap.jpg file on your desktop. Click on Open. (This tells Automator that you intend the rest of your workflow to operate on the weather map file.) Now drag the Preview: Pad Images action to the end of your Automator workflow. A dialog box will ask whether you want to make a copy of the image. Click on Don't Add.

Fill in the width and height of your screen in the appropriate text boxes. (Find yours by opening the Displays preference pane and noting which item is selected in the Resolutions list.) Select the Scale Image Before Padding option to ensure that your image fits the screen just right.

Drag the Automator: Run AppleScript action to the end of your workflow. Now you're going to incorporate another AppleScript—the code that sets your desktop picture. In the new Run AppleScript action, type the following in place of `(* Your Script Goes Here *)`:

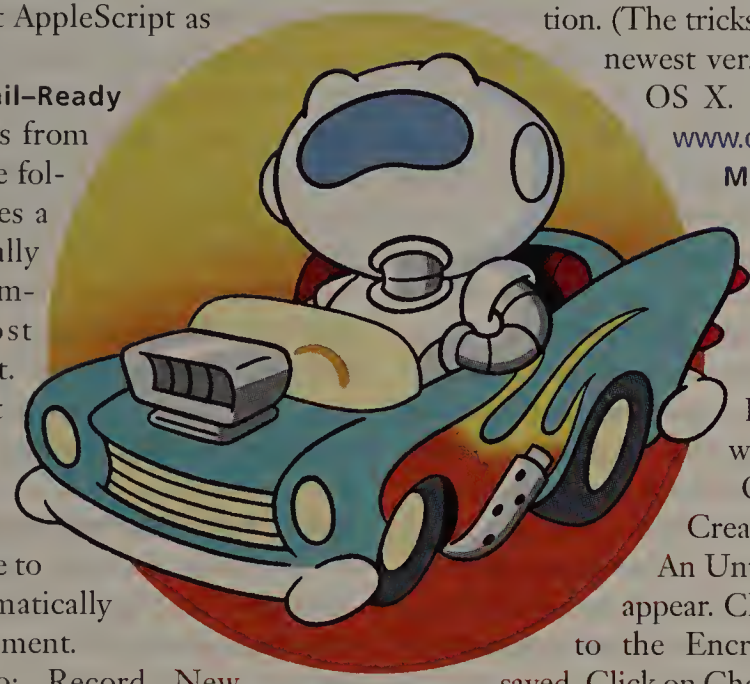
```
tell application "Finder"
select window of desktop -- in preparation for changing the desktop picture
set desktop picture to POSIX file
```

```
"/Library/Desktop Pictures/Solid Colors
/Solid Gray.png" -- to make the desktop
refresh itself
  set desktop picture to file (input as
text) -- "input" is weathermap.jpg
  end tell
```

Now, whenever you run your workflow, your Mac will fetch the newest weather map from the Internet and—like magic—place it on your desktop. (Go to macworld.com/1220 to download this workflow, and fill in the information for your system.)

Merge Automator with Office Macros

Automator actions that control Microsoft Office 2004 ($399; www.microsoft.com) are exceedingly scarce. But it's easy to record a macro (shortcut) in an Office program and then link it to an Automator workflow. The trick is to use a short AppleScript as the mediator.



Create a Secure, E-mail–Ready Archive Using some tricks from the previous workflow, the following procedure produces a workflow that automatically password-protects and compresses your frontmost Microsoft Word document. First, launch Microsoft Word and open a document that you'd like to encrypt. You'll password-protect this document once to teach Word how to automatically password-protect *any* document.

Choose Tools: Macro: Record New Macro, and type `Encrypt` in the Macro Name text field. Click on OK. Now Microsoft Word is recording everything you do. Choose Word: Preferences, and then click on Security in the list. Type the password you want to use in the Password To Open text field. Word will now require this password when anyone tries to open the document. Click on OK and then confirm the password. Choose File: Save, and then choose Tools: Macro: Stop Recording.

Switch to Automator, create a new workflow, and add the Automator: Run AppleScript action to the workflow. Replace *all* the text in the script box with the following code (go to macworld.com/1235 to copy it):

```
  on run {input, parameters}
  tell application "Microsoft Word"
  run VB macro macro name "Encrypt" -- run
the macro
  return {(the path of the front document
& ":" & the name of the front document)
as alias} -- pass the name of the Word
document on to the next action
  end tell
  end run
```

Add the Finder: Create Archive action to the end of the workflow. This action takes your newly encrypted Word file and compresses a copy for you. Type a generic name, such as `Encrypted_doc`, into the Save As field. From the pop-up menu, select the location where you want the archives to appear.

To save your new workflow, select File: Save and give it a name. Select Workflow from the File Format menu. To make this work with Excel, just repeat the preceding steps, but record the macro in Excel and replace `Word` in the AppleScript code with `Excel`.

Trigger Workflows with QuicKeys

Startly Technologies' QuicKeys (♦♦♦♦; macworld.com/0778) has long been one of the most popular automation tools for the Mac. Now it's more powerful than ever, with features that include Automator integration. (The tricks described here require the newest version of QuicKeys for Mac OS X. Get a 30-day demo from www.quickeys.com.)

Make Workflow Magic As helpful as your last workflow is, it still requires that you switch out of Microsoft Word, launch Automator, and click on Run. A QuicKeys shortcut will save you time.

Open QuicKeys and choose Create: Scripting: Workflow. An Untitled Shortcut window will appear. Click on Select, and navigate to the Encrypter workflow you just saved. Click on Choose. Click on the plus-sign pop-up menu in the middle of the window on the right side, and choose QuicKeys: Message. When QuicKeys completes a workflow, it doesn't let you know; if you want some feedback, select the Play Sound option here and pick a sound from the pop-up menu.

To assign your keyboard shortcut, click on the plus sign near the Scopes & Triggers header. By default, QuicKeys will assign this workflow the F3 shortcut if you haven't created any other shortcuts with the program (see "One-Button Workflow"). If you're already using that function key, change your new QuicKeys shortcut by clicking on the Hot Key pop-up menu and pressing another function key or key combination. Choose File: Save Shortcut. Give your shortcut a name (`Encrypter`, for example), and click on OK.

That's it! Now, as long as QuicKeys is running, whenever you press your hot key, your Automator workflow will spring into action—encrypting and compressing the current Word document.

ADAM GOLDSTEIN (www.goldfishsoft.com) is the author of *AppleScript: The Missing Manual* (O'Reilly, 2005).

ILLUSTRATION BY CHRIS GASH

Mac OS X Hints

The Insiders' Tips You Won't Get from Apple

Make Mail Go "Old School"

I may be old-fashioned, but when it comes to my e-mail messages, I like to concentrate on the words themselves. So I prefer plain text with no Web-page (HTML) design. And I don't like fancy colors, background images, font changes, or other garish effects.

Thankfully, Apple's Mail lets you get rid of any images that don't come attached to messages. Choose Mail: Preferences, click on the Viewing tab, and turn off the Display Remote Images In HTML Messages option. In addition to toning down your mail, this also takes away a favorite tool of spammers (they embed images that are specifically designed to verify that e-mail addresses are valid targets).

Unfortunately, if someone used HTML to pretty up a message, or attached the images to the message itself, you'll still see the results. But a quick trip to the Unix side of OS X can solve that problem, too. Quit Mail and launch Terminal (/Applications/Utilities). At the prompt, type this command; then press return:

```
defaults write com.apple.mail
PreferPlainText -bool TRUE
```

You'll just get the prompt back, as though nothing had happened. But the next time you launch Mail and retrieve new messages, you should find that *most* are now displayed in pure plain text.

If you ever tire of plain-text messages, quit Mail, launch Terminal, and repeat the above command—just change `TRUE` to `FALSE`.

Send Obscure Smileys with the Keyboard

If you use smileys (also known as emoticons) when you're chatting with Apple's iChat, you probably know how to use keyboard shortcuts to express your moods. For example, typing `:-)` sends an image of a smiling face, `;-)` sends a winking one, and so on. These shortcuts spare you a trip to the smiley pull-down menu (to the right of the chat text field).

But what happens if you don't know the keyboard equivalent for the smiley you want? (For instance, you may not know that `0:-)` sends the "innocent" emoticon.) You might think there's no way to avoid moving your hand to the mouse—but instead, try this all-keyboard solution: just press tab.

Doing this should highlight the smiley icon next to the iChat text field. Press the spacebar, and the drop-down menu will appear. Use the arrow keys (all four of them) to navigate through the images, stop at the smiley you want, and then press return. When you do, iChat will insert the image in your message, and you can go right back to chatting.

If this trick doesn't work, it's because you haven't enabled Full Keyboard Access. Open System Preferences, click on the Keyboard & Mouse pane, and then click on the Keyboard Shortcuts tab. At the bottom is the Full Keyboard Access section. Make sure the All Controls option is selected. You can toggle this on and off by pressing control-F7 if you find it annoying in other applications.

Identify Unknown Icons

OS X provides a number of quick ways for you to reach frequently used applications and documents. You can keep them in the Dock or you can store them in the Finder window's sidebar or toolbar. Over time, you might find that these locations become cluttered. And eventually you'll probably see an icon you've long for-

Tooltips Tell Tales Not sure where a certain icon on your Finder's toolbar came from? Just hover over it, and the pop-up tooltip will reveal all.

WHAT'S ONLINE

> **Reduce Wasted Menu-Bar Space**
Tired of applications with long names taking up all the space in your menu bar? Cut those names down to size.
macworld.com/1198

> **Use Google Maps with the Address Book Widget**
The Address Book widget is very handy, but it's even cooler when you make it use Google's nifty mapping service.
macworld.com/1199

> **Safely Modify Dashboard Widgets**
If you want to tweak your Apple-provided widgets (as in the above tip), learn how to do so safely.
macworld.com/1200

POWER TIP OF THE MONTH

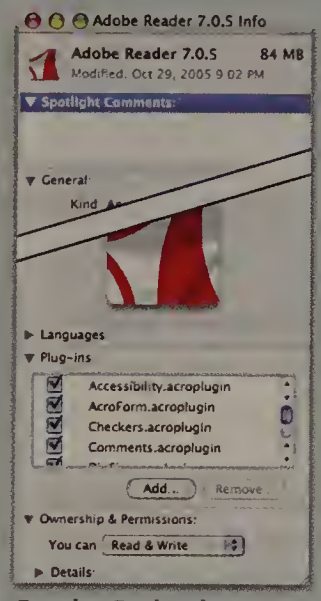
Create a Lean, Mean Adobe Reader Machine

Apple's built-in Preview application works fine when you need to view a PDF file, but many people prefer the free Adobe Reader 7 (macworld.com/1197). Why? Some people work in all-Adobe shops, while others just prefer Reader's interface and features. Here are two ways to cut down greatly on its startup time and reduce how much RAM it consumes.

The Brute-Force Method When you launch Reader, simply hold down the shift key. This disables all plug-ins. You'll find that Reader loads very quickly but also has quite limited functionality—you won't be able to click on hyperlinks or search a PDF, for instance. Reader will return to normal the next time you launch it.

The Selective Method Instead of disabling all plug-ins, you can selectively and permanently disable those you don't need. Make sure Reader isn't running, and then open the Adobe Reader 7 folder in the Applications folder (this trick should also work with previous versions of the program). Within the Reader folder, select the Adobe Reader 7 icon and choose File: Get Info, or just press ⌘-I.

In the Info window that appears, click on the gray triangle next to Plug-ins to reveal the list (see "Reader Reductions"). To disable a plug-in, click on the box next to its name to remove the check mark. You can disable every plug-in *except* the following four: WebLink.acroplugin, ImageViewer.acroplugin, EScript.acroplugin, and Search.acroplugin. Leave these enabled so you'll be able to click on links, see slide shows, and search within PDFs.



Reader Reductions To reduce Adobe Reader's launch time and RAM usage, disable some of its plug-ins in the Get Info window.

That's all you need to do. Close the Info window, and then launch Reader. When I use OS X's Activity Monitor (/Applications/Utilities) to look at Reader's memory usage on my Mac, I see that it now uses 15MB, instead of the 30MB it required with all plug-ins enabled.

If you realize you need a plug-in, but aren't sure which one, Reader can help. Make sure all plug-ins are enabled in the Get Info window, launch Reader, and then choose Adobe Reader: About Adobe Plug-ins from the menu. A window will open, showing each plug-in's purpose, as well as which other plug-ins you must enable in order to use it. If you work with forms or comments, for instance, you'll need to reactivate AcroForm, Comments, and EFS. (Note that the plug-in's name is shown on the right side of this window; it's *not* the item name in the left column.)

gotten about. Sure, you could just open it to discover what it is, but you still might not know where to find the original on your machine.

For items in the Dock and the sidebar, tracking down this information is a cinch. Control-click on an item in the Dock and choose Show In Finder from the contextual menu. Or control-click on an item in the sidebar and choose Get Info from the contextual menu; the Get Info window will contain the item's full path.

Unfortunately, control-clicking on a toolbar entry reveals only an option to remove it, along with standard toolbar-view options. Also, you can't click once to select the item, as toolbar entries launch with a single click. What to do? When you want to find out more about something in the toolbar, hover over that item for a bit. A handy tooltip will pop up, displaying its full path (see "Tooltips Tell Tales"). You can speed the process up a bit by pressing the option key while hovering—the tooltip will display instantly.

Create Overlapping iCal Events

Do you need to track overlapping events in iCal—for instance, your son has swim class from 4:30 to 6:30 p.m. while your daughter has soccer practice from 5:15 to 7 p.m.? If so, you may wonder how you can create these events in Apple's iCal.

When you're in Day or Week view (⌘-1 or ⌘-2), you could create a new event and then just drag and drop it to overlap the existing event. But here's an even quicker way: press and hold ⌘-option, and then just start dragging at the time you want the new event to start—right on top of the existing event.

For instance, if you have an existing 10 to 11 a.m. meeting, and someone schedules a new one at 10:30 a.m., just press and hold ⌘-option, line up the cursor at 10:30 on the existing event, and start dragging. iCal will drag out a new event as you move the cursor down, and then it will show the two events side by side when you're done.

Go Back to a New Tab

Many news sites and blogs consist primarily of links to other pages. It's with sites like this that tabbed browsing really shows its strengths—just ⌘-click your way through the stories you find interesting, and each opens in a new background tab, ready for future reading. (To turn on this feature in Apple's Safari, go to Safari: Preferences, click on Tabs, and choose the Enable Tabbed Browsing option.)

But what happens if you accidentally click on a link instead of ⌘-clicking on it? Then that story will open in the current window, replacing its content. The typical solution to this problem is a quick two-step. Click on the Back button to put the news page on screen again, and then ⌘-click on the link you were interested in reading.

Here's a workaround that can save a step, at least in Mozilla Firefox (www.mozilla.com) and Safari. Instead of doing the two-step, just ⌘-click on your browser's Back button. The page you last viewed (the news page, in this example) will open in a new tab, leaving the current story active in the foreground.

Senior Editor ROB GRIFFITHS is the author of *Mac OS X Power Hound, Panther Edition* (O'Reilly, 2004).

Have a hint? Go to the Mac OS X Hints Web site (www.macosxhints.com) to share it. This column was based on tips from Jolyon Hogarth-Scott, Mohsan Khan, and anonymous contributors. Each month, the author of our favorite tip receives the *Help Desk* mug.

ICONS BY PAUL HOWALT; MUG PHOTOGRAPH BY PETER BELANGER

HELP DESK

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Mac 911

Solutions to Your Most Vexing Mac Problems

Terminating Locked Files

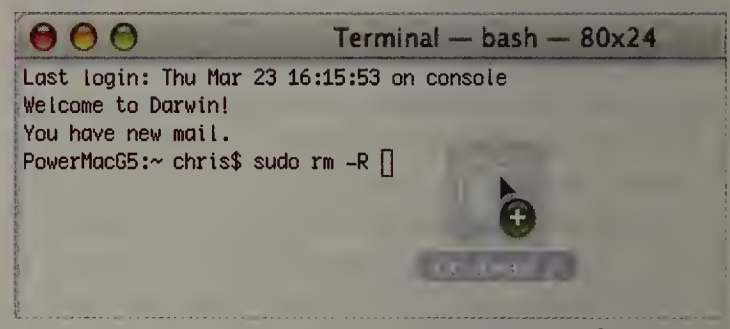
I can't delete several files I downloaded, because they are locked. How do I delete locked files?

James Van de Velde

I'll assume we're talking about files that OS X *thinks* are locked but that aren't really—they are just being stubborn. (To unlock truly locked files, just select them, press ⌘-I, and, in the Info window, disable the Locked option.) This is the most frequently clicked-on question in the Macworld Mac OS X Forum FAQ (created by Derik DeLong and the late great Grant Grubb; godlikenerd.com/osxforumfaq). Because the question is so popular—and comes my way at least a couple of times a month—I'll offer the answer one more time.

Launch Terminal and type `sudo rm -R`, making sure there's a space following the `rm` command. Drag the locked file into the Terminal window; this adds the file's path name to the command line. Press the return key and, if prompted to do so, enter your administrator password and press return again. In a moment or two, the file will be vaporized. Repeat for other files that you can't trash by other means.

Here's what's going on: `sudo` gives you temporary superuser powers—powers that can be used for good or evil, so be very careful to type the command correctly. The `rm` command is Unix-speak for "remove directory." The `-R` switch specifies inclusion of the target item's entire file hierarchy (meaning that the command will delete the item and all its contents). If you added an `-i` switch (as in `-iR`), Terminal would ask you if you'd like to examine the contents of the item and then would ask for permission to delete each specific element within (each file within a folder, for example). When you don't specify that `-i` switch, as soon as you press return, your locked item will disappear, never to come back again—so make sure that you select the correct file.



Really, Truly Deleted When you need to get rid of locked files, use Terminal's `rm` command.

Gently Down the Stream

I'd like to add some streams to the Radio section of iTunes. I have some favorite stations that I want to tune into, and would like to access them through iTunes. Can you give me the steps for adding streams?

Matt Ernst

Indeed I can.

Step 1 Let go of the idea that you can add streams to the list that appears when you select Radio in iTunes' Source list. Apple controls that section, and you can't add to or subtract from it.

Step 2 Understand that you can add your own streams to the iTunes library.

Step 3 To do this, go to Shoutcast (www.shoutcast.com), find a station you wish to stream to your computer, and click on the Tune In button next to that station.

Step 4 You'll be presented with the option to download a .pls (playlist) file. Download it. If your browser asks which application you'd like to use to play it (iTunes will be the default) and you click on OK, the .pls file will be automatically added to

TIP OF THE MONTH

Faster Macworld URL Access

Macworld often provides references to Web pages or products in the form of addresses such as macworld.com/*xxxx*, where *xxxx* is a four-digit code. Typing that into Safari's Address field can be tiring, especially if you follow those URLs a lot; if you've entered similar URLs in the past, Safari automatically offers a list of similar links to choose from, none of which is the one you want.

I came up with a bookmarklet to make the process easier. Enter the following code in Safari's Address field:

```
javascript:nbr=prompt('Enter%20the%20URL%20of%20the
%20Macworld%20reference%20you%20want%20to%20visit:','
0638');window.location.href='http://www.macworld.com/'
%20+%20nbr;
```

All that text has to run together, without any spaces.

You'll be asked for a four-digit number. Enter the number you found in *Macworld* and click on OK in the dialog box. To make the bookmarklet more accessible, just drag it to the Bookmarks bar.

Steve Hammond

iTunes and the station will start streaming. If it doesn't, double-click on the downloaded file to add it to iTunes, and the station will begin playing.

Step 5 You needn't rely on outfits like Shoutcast and Live365 (www.live365.com) for your iTunes streams. Some terrestrial and Internet radio stations offer .pls links from their home pages. You can also add a station manually if you have its streaming address. With such an address in hand, choose Advanced: Open Stream In iTunes and enter it in the URL field.

Step 6 Once your stations are in the iTunes library, you may wish to create new playlists for them. You can, for example, group all the streams you have by creating a smart playlist, using the condition Kind Contains Audio Stream. Although you can't add items to Apple's Radio list, you can copy stations from that list to a stream playlist—just drag them from the Radio list to the playlist.

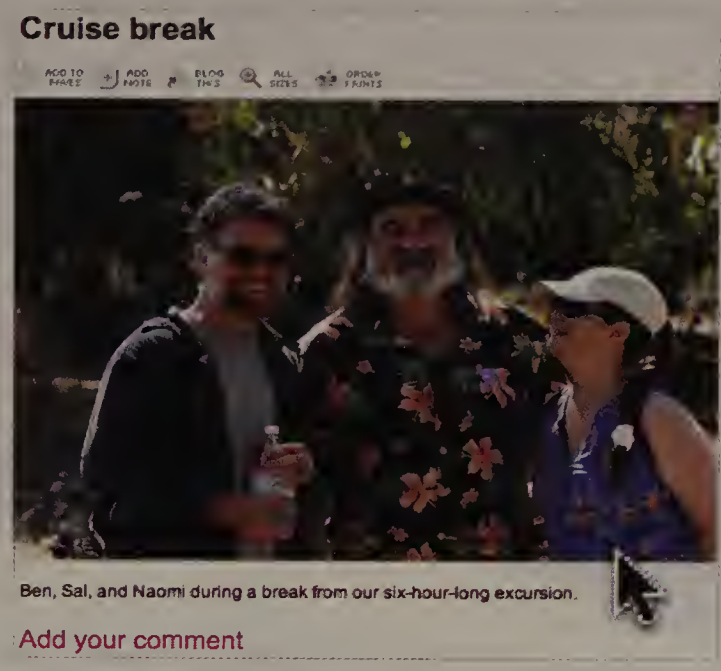
Gathering Streams Once you've added audio streams to iTunes, you can collect them all in one smart playlist.

Snapz and the Colossal Cursor

I was impressed by your recent Mac 911 blog item describing how to increase the size of the cursor in versions of Mac OS X prior to 10.4 (macworld.com/1184). I want to use the big cursor with Ambrosia's Snapz Pro X to make better screen shots and screen movies for training materials. Alas, Snapz Pro won't accept input from a more-expansive cursor. Is there a way around this?

Frank Lowney

No matter how you supersize your cursor—whether you do so with the help of a third-party utility or, in Tiger, with the Cursor Size slider found in the Mouse tab of the Universal Access preference pane—Snapz Pro won't normally show it. But there is a way to get that giant cursor in your screenshots. Once you invoke Snapz Pro, choose your favored style of screen grab using the keyboard's number keys. Pressing 1 will do a full-screen capture, 2 will capture just an on-screen object, 3 will grab a selection, and 4 will record a movie. Once you've invoked a capture style, the large cursor will be able



Arrowing Adventure Want to see a big cursor in your screenshots? Select a Snapz Pro capture style with your keyboard instead of the mouse.

to select whatever you want to capture (see "Arrowing Adventure").

Imperfect Pitch

While working on an iMovie project, I extracted the audio from a movie clip and copied it to GarageBand so I could use some of GarageBand's effects on it. The audio plays normally in iMovie, but it's slower and deeper in GarageBand. I've tried changing the tempo in GarageBand, but that doesn't speed up the audio track. What's going on?

Terry Southern

That audio clip you extracted is formatted as a 48kHz AIFF file, which plays back normally in iMovie. When you import it into GarageBand, its sample rate converts to 44.1kHz. Changing an audio file's sample rate may also change its length and pitch unless the converter compensates for it. GarageBand doesn't compensate, and that's why your file sounds deeper.

Thankfully, iTunes does compensate for sample rate conversion—playing a converted file at its proper length and pitch. So the secret is to first import the audio clip into iTunes and convert it using the Advanced: Convert Selection To command; then bring the converted file into GarageBand, where it will play back normally.

By default iTunes will convert the selection to AAC, but you can change the file format to something else—AIFF, WAV, MP3, or Apple Lossless—in iTunes' preferences (iTunes: Preferences: Advanced: Importing).

If you want to keep the file as an AIFF but convert it to 44.1kHz, you must manually choose its sample rate, as iTunes will keep the sample rate at 48kHz unless you instruct it to do otherwise. To choose the sample rate, while in the Importing area of the Advanced preference, choose AIFF Encoder from the Import Using pop-up menu, Custom from the Setting pop-up menu, and 44.1kHz from the Sample Rate pop-up menu that appears in the AIFF Encoder window. □

Senior Editor CHRISTOPHER BREEN is the author of *The iPod and iTunes Pocket Guide* (Peachpit Press, 2005).

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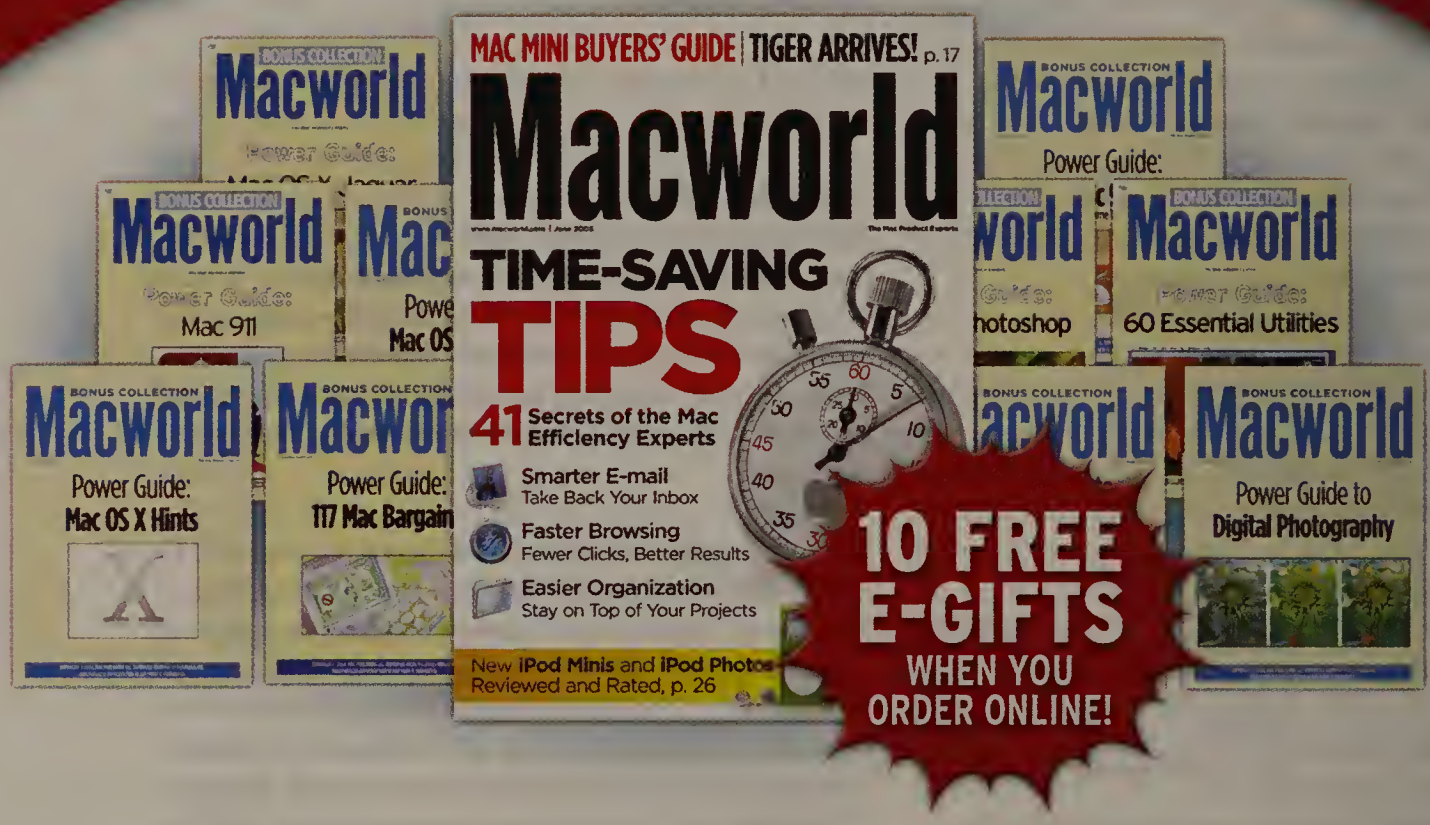

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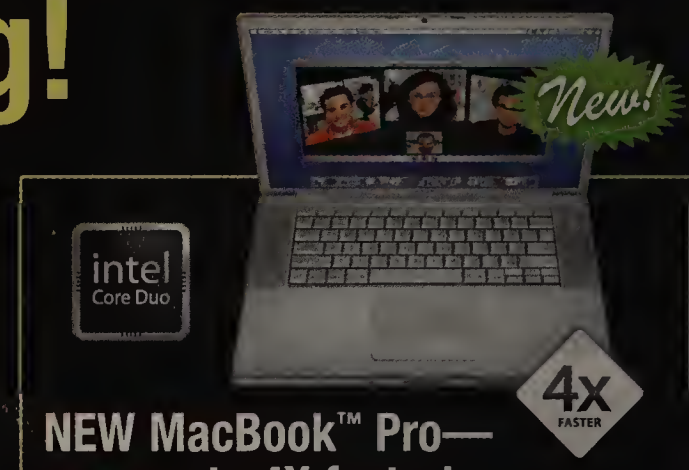

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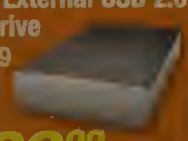

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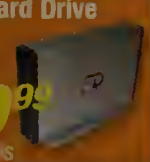

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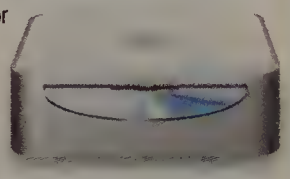

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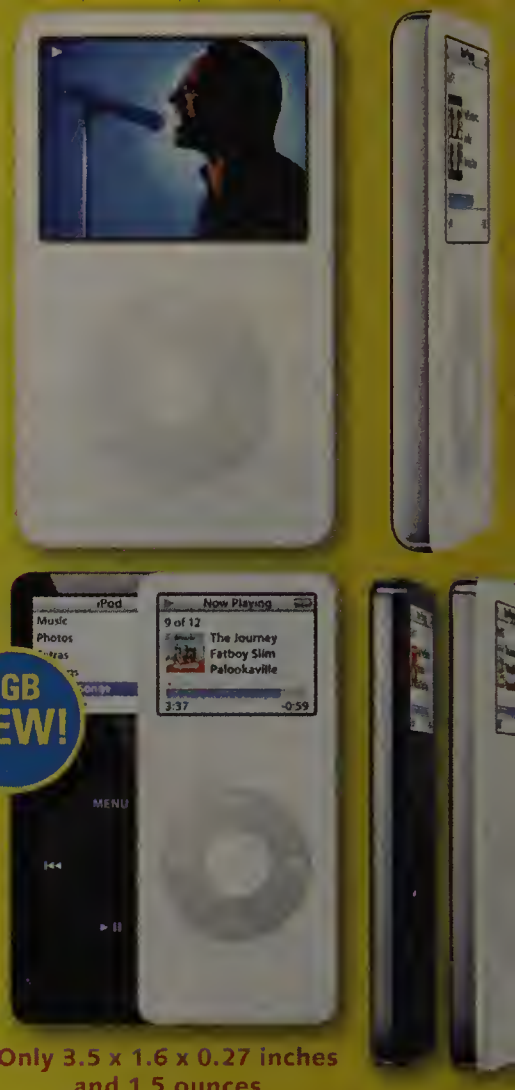

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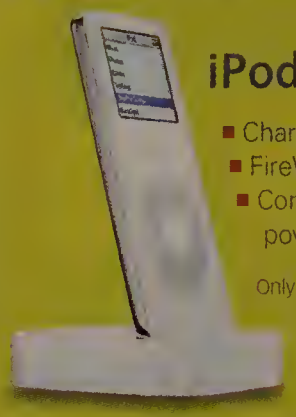

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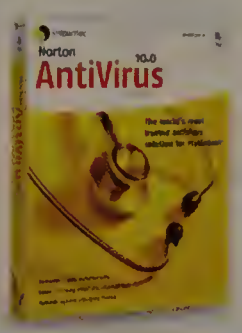

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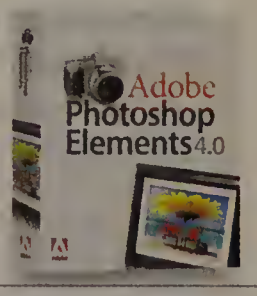

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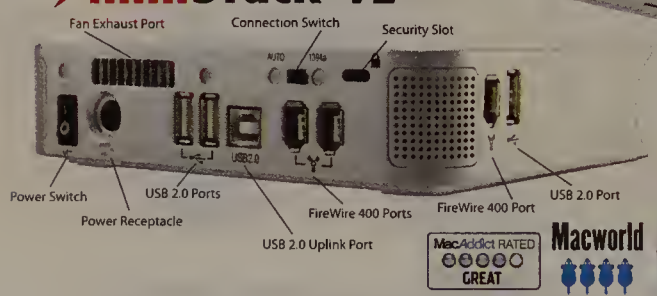

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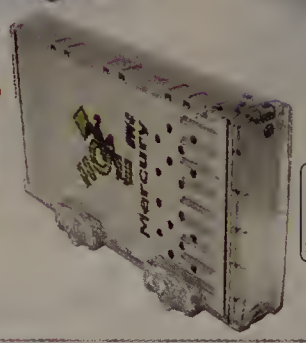

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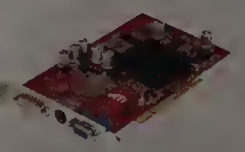

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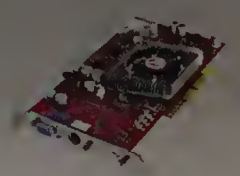

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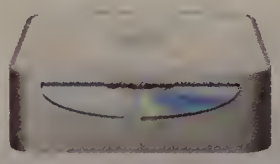

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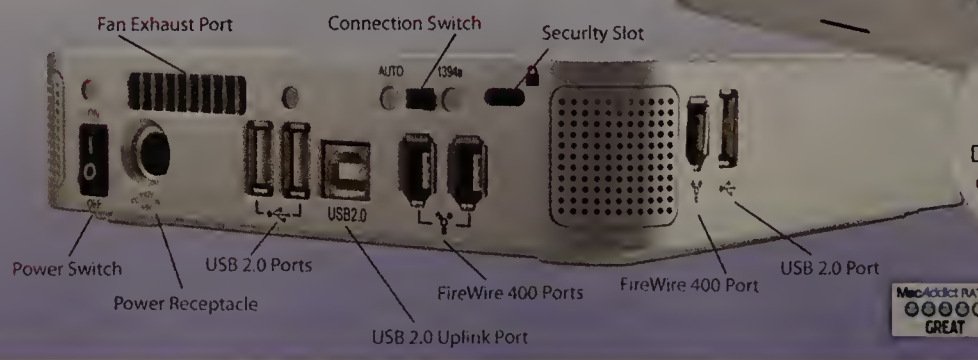

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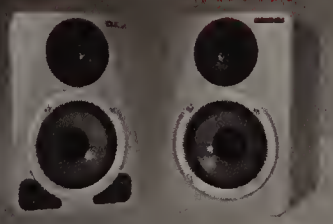

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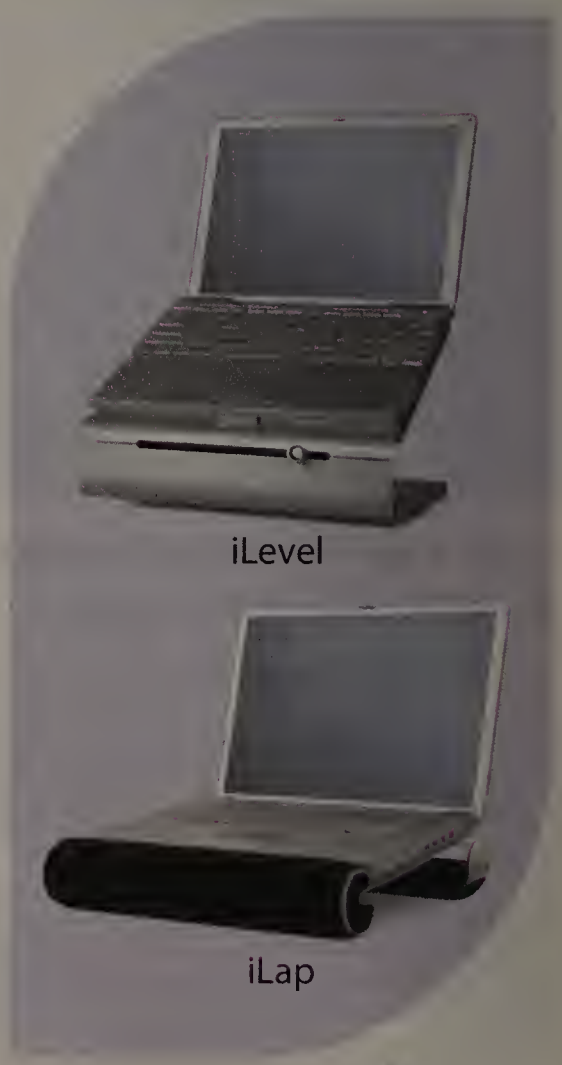

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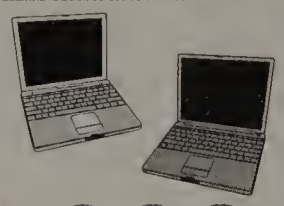

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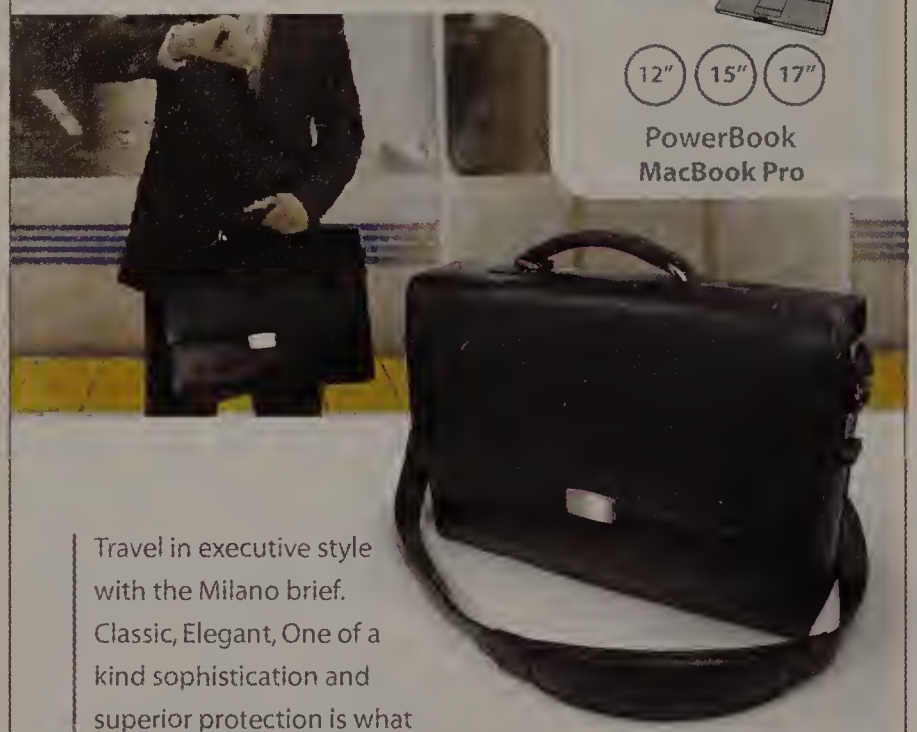

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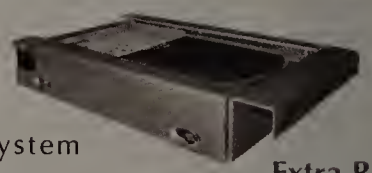

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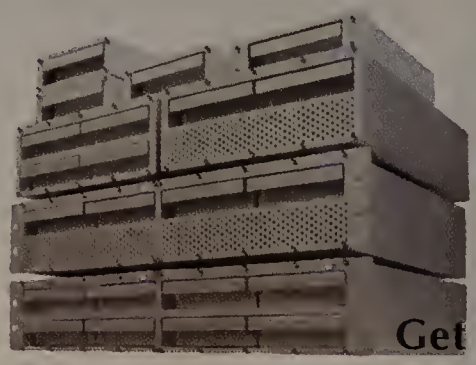

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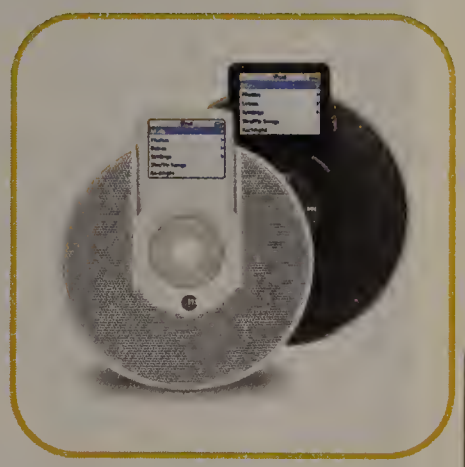

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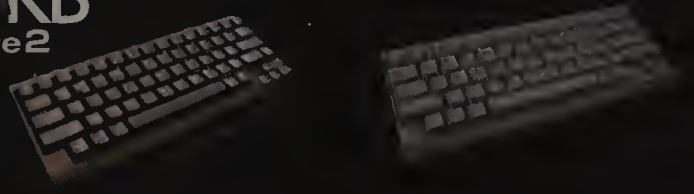

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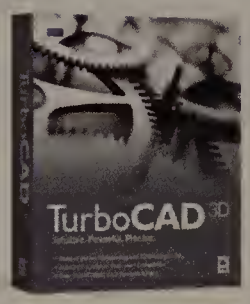

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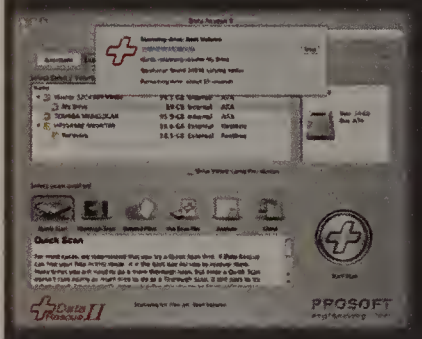

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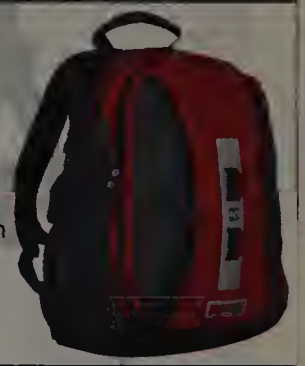

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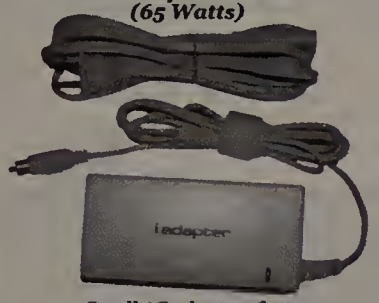

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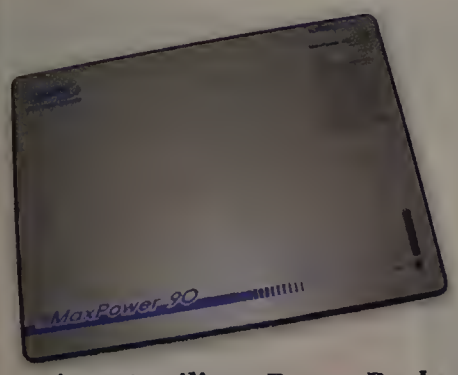

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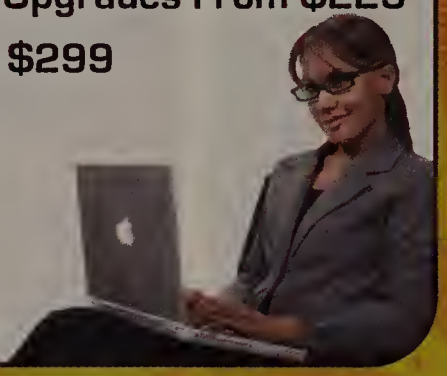

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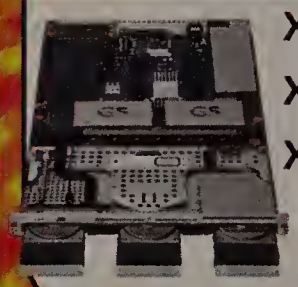

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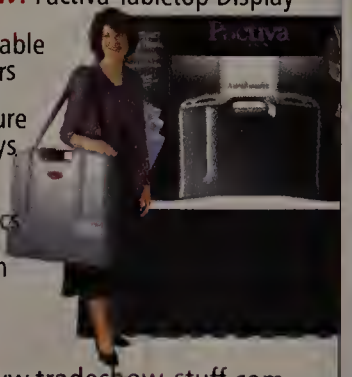

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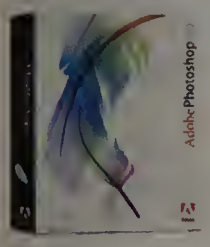

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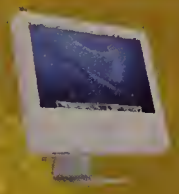

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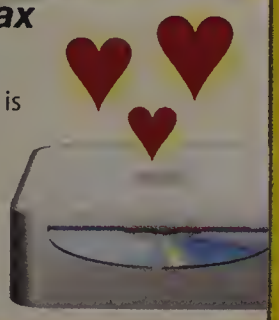

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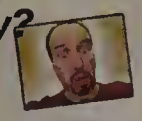

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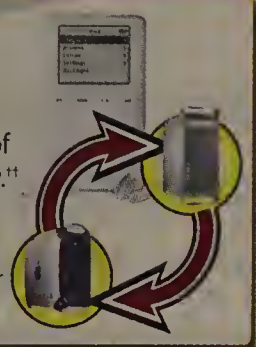

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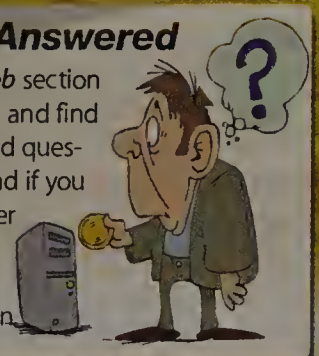

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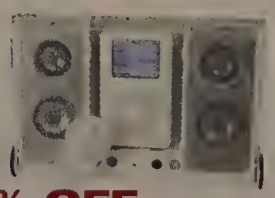

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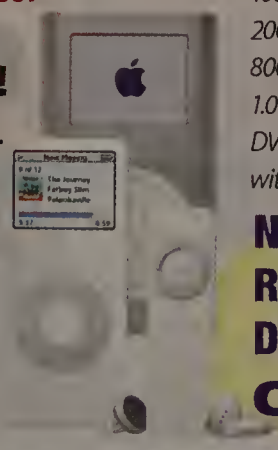

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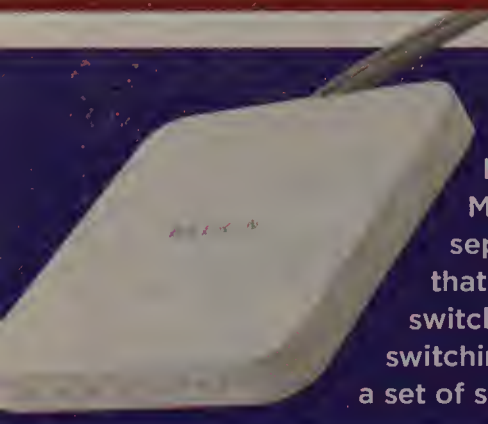
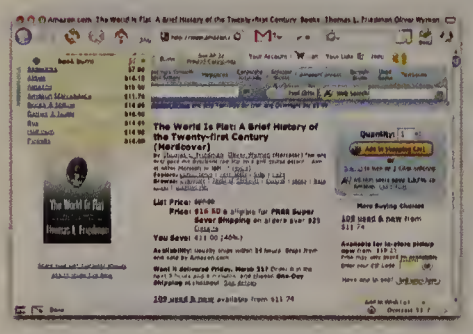


Flip for Mac Mini

Here's the dilemma: your Mac mini sits on the same desk as your Power Mac G5 (or any other Mac or PC, for that matter), but you don't have the space for—or want to spend the money on—separate monitors, mice, and keyboards. The solution? Belkin's $85 Flip for Mac mini, a stylish box that lets both computers share the same peripherals (and it has built-in cables). Unlike other KVM switches, the Flip for Mac mini fits directly under your mini, and its touch-sensitive buttons make switching between computers, ejecting a CD, and adjusting volume easy. It can even help you share a set of speakers (www.belkin.com).—JACKIE DOVE

Greasemonkey 0.6

One of the most impressive things about Firefox is the seemingly endless number of ways you can add functionality to it. My favorite is Greasemonkey, an extension that executes dynamic scripts on Web pages. For instance, you can shop for a book on Amazon.com and compare prices from a dozen different stores, you can look for an apartment on Craigslist but see only listings that contain pictures, and you can have each story link in Wikipedia open in a dynamic window—to name just a few features. It's all possible thanks to the smiling little monkey (macworld.com/1126).—CURT POFF



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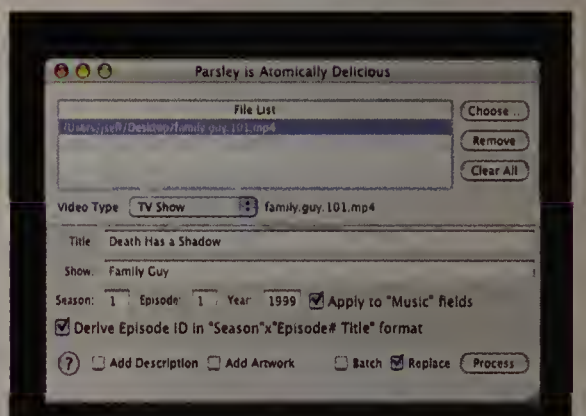

Parsley Is Atomically Delicious 1.2

I like how TV shows purchased from the iTunes Music Store appear in the iPod's TV Shows menu. But I've ripped many shows from DVDs I own, and iTunes doesn't let me file those shows under that menu. So I've started using James Huston's free Parsley is Atomically Delicious (a graphical interface for the MPEG-4–editing tool AtomicParsley) to file my own shows. With it, I can tag my iPod-ready video files with title, show, season, episode, and year info. And unlike a similar app, Lostify, it lets me overwrite the existing file rather than duplicating it (them.ws/pad).—JONATHAN SEFF

WHAT'S HOT

Brought to you by John Moltz of the Crazy Apple Rumors Site (www.crazyapplerumors.com)

1. **Apple once again goes up against the Beatles' record company, Apple Corps, in court.** *A last-minute settlement, which would have let Yoko Ono break up one iTunes Music Store band per year, fell through.*
2. **OS X faces threats from a new Trojan horse and a Safari security hole.** *For those of you keeping score of current security risks, that's OS X: 2, Windows: 1,453,812.*
3. **Apple celebrates its 30th anniversary.** *When asked how he planned to mark the event, Steve Jobs replied, "What happens in Cupertino stays in Cupertino."*
4. **Following other companies in the industry, Apple plans to open a tech-support facility in India.** *Apple's new commercial announcing the move will feature Steve Jobs in a colorful Bollywood dance montage.*

MonsterPod

I carry my compact digital camera with me everywhere but rarely have a tripod. So if I want to appear in one of my photos, I have to either find a flat surface that is at exactly the right height or ask a stranger. But with the $30 MonsterPod (from a company of the same name), I can use just about anything to steady my camera. This compact mount is made from a special polymer that sticks to any hard surface. You simply attach it to your camera's tripod mount, mold it into the shape you want, and press it against a nearby object—for example, a tree, a wall, or the back of a chair. It can even hang upside down (www.monster-pod.com).—KELLY TURNER

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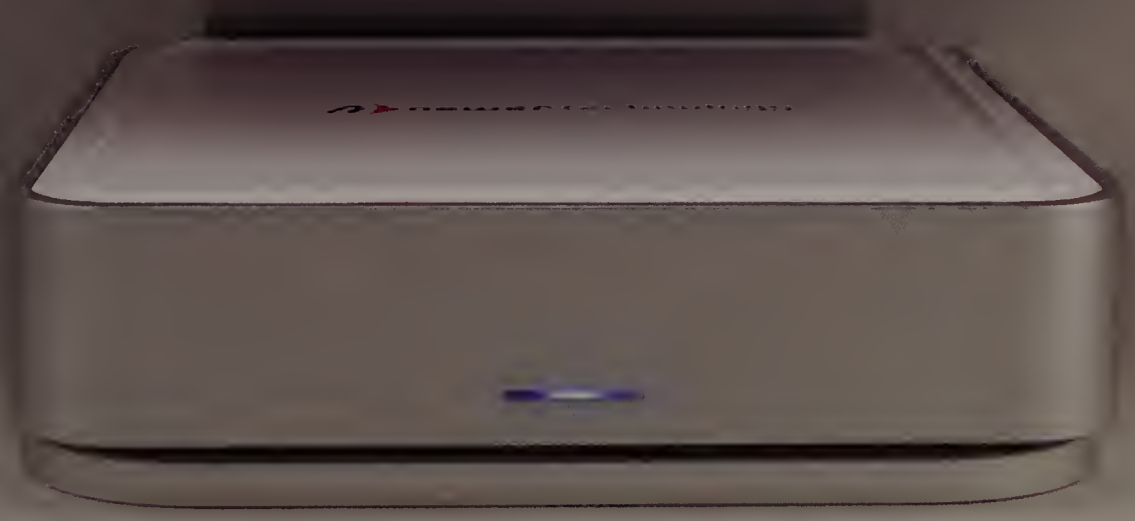

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